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File Copy

Q8VU48
ID Q8VU48 PRELIMINARY; PRT; 581 AA.
AC Q8VU48
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last annotation update)
DT 01-OCT-2002 (TReMBLrel. 22, Last annotation update)
DE Putative polymorphic membrane protein (Fragment)
OS Chlamydia psittaci (Chlamydia phila psittaci)
OC Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydia phila.
OX NCBI_TaxID=83554;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-POS;
RA Laroucau K., Souriau A., Rodolakis A.;
RT "Isolation of a new pmp sequence and evidence of pmp polymorphism in serotype-1 Chlamydia psittaci strains";
RL Submitted (MAR-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF243419; AAL36963.1;
DR InterPro; IPR003368; Chlamydia_PMP.
DR Pfam; PF02415; DUF145; 1.
FT NON_TER 1
SQ SEQUENCE 581 AA; 62860 MW; CDDF3C98522E112F CRC64;
Query Match 1.1%; Score 10; DB 2; Length 581;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 685 AAFCOLFGKD 694
Db 351 AAFCOLFGKD 360
RESULT 5
Q8VU57
ID Q8VU57 PRELIMINARY; PRT; 601 AA.
AC Q8VU57
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last annotation update)
DT 01-MAR-2003 (TReMBLrel. 23, Last annotation update)
DE Putative polymorphic membrane protein (Fragment)
OS Chlamydia psittaci (Chlamydia phila psittaci)
OC Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydia phila.
OX NCBI_TaxID=83554;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-POS, and LLG;
RA Laroucau K., Souriau A., Rodolakis A.;
RT "Isolation of a new pmp sequence and evidence of pmp polymorphism in serotype-1 Chlamydia psittaci strains";
RL Submitted (MAR-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF243416; AAL36960.1;
DR EMBL; AF243417; AAL36961.1;
DR InterPro; IPR006315; Autotransport.
DR InterPro; IPR003368; Chlamydia_PMP.
DR Pfam; PF02415; DUF145; 1.
DR TIGRFAMS; TIGR01414; autotrans_bar1; 1.
FT NON_TER 1
SQ SEQUENCE 601 AA; 65476 MW; D6AA97EC9072C757 CRC64;
Query Match 1.1%; Score 10; DB 2; Length 601;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 685 AAFCOLFGKD 694
Db 351 AAFCOLFGKD 360
RESULT 6
Q8VU49
ID Q8VU49 PRELIMINARY; PRT; 602 AA.
AC Q8VU49
DT 01-MAR-2002 (TReMBLrel. 20, Created)

RESULT 2
P71134
ID P71134 PRELIMINARY; PRT; 649 AA.
AC P71134
DT 01-FEB-1997 (TReMBLrel. 02, Created)
DT 01-FEB-1997 (TReMBLrel. 02, Last annotation update)
DT 01-MAR-2003 (TReMBLrel. 23, Last annotation update)
DE Putative outer membrane protein (Fragment)
OS Chlamydia phila abortus.
OC Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydia phila.
OX NCBI_TaxID=83555;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-ovine abortion S26/3;
RA Longbottom D., Russell M., Dunbar S.M., Jones G.E., Herring A.J.;
RT "98kDa protein genes from ovine abortion strain S26/3 Chlamydia psittaci";
RL Submitted (SEP-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; U72499; AAB18187.1;
DR InterPro; IPR006315; Autotransport.
DR InterPro; IPR003368; Chlamydia_PMP.
DR Pfam; PF02415; DUF145; 1.
DR TIGRFAMS; TIGR01414; autotrans_bar1; 1.
FT NON_TER 1
SQ SEQUENCE 649 AA; 70091 MW; 13747C68066A7F50 CRC64;
Query Match 1.3%; Score 12; DB 2; Length 649;
Best Local Similarity 100.0%; Pred. No. 0.011;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 646 GISNFFHKDSTK 657
Db 366 GISNFFHKDSTK 377
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ID Q9RB70 PRELIMINARY; PRT; 427 AA.
AC Q9RB70
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last annotation update)
DT 01-MAR-2003 (TReMBLrel. 23, Last annotation update)
DE Polymorphic outer membrane protein G family.
GN PMP_4_1
OS Chlamydia pneumoniae (Chlamydia phila pneumoniae).
OC Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydia phila.
OX NCBI_TaxID=83558;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-J138;
RX MEDLINE=20330349; PubMed=10871362;
RA Shirai M., Hirakawa H., Kimoto M., Tabuchi M., Kishi F., Ouchi K.,
RA Shiba T., Ishii K., Hattori M., Kuhara S., Nakazawa T.;
RT "Comparison of whole genome sequences of Chlamydia pneumoniae J138 from Japan and CWL029 from USA";
RL Nucleic Acids Res. 28:2311-2314 (2000).
DR EMBL; AP002545; BAA98227.1;
DR InterPro; IPR003368; Chlamydia_PMP.
DR Pfam; PF02415; DUF145; 1.
DR TIGRFAMS; TIGR01376; POMP_repeat; 6.
SQ SEQUENCE 427 AA; 43419 MW; AB4BBBC1594DD2B1 CRC64;
Query Match 1.1%; Score 10; DB 16; Length 427;
Best Local Similarity 100.0%; Pred. No. 0.79; Indels 0; Gaps 0;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 416 IVFSGEKLSE 425
Db 416 IVFSGEKLSE 421

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OM protein - protein search, using sw model

Run on: August 22, 2003, 15:43:16 ; Search time 32 Seconds
(without alignments)

1227.015 Million cell updates/sec

Title: US-09-857-128-14

Perfect score: 928

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Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 328717 seqs, 42310858 residues

Word size: 0

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 50 summaries

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Issued_Patents_AA:*

- 1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep.*
- 2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep.*
- 3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep.*
- 4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep.*
- 5: /cgn2_6/ptodata/1/iaa/PTUS_COMB.pep.*
- 6: /cgn2_6/ptodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	426	45.9	927	4	US-09-198-452A-472
2	16	1.7	930	4	US-09-198-452A-470
3	12	1.3	507	4	US-09-198-452A-32
4	10	1.1	199	4	US-09-198-452A-26
5	10	1.1	427	4	US-09-198-452A-31
6	10	1.1	557	4	US-09-198-452A-29
7	10	1.1	643	4	US-09-198-452A-474
8	9	1.0	494	4	US-09-198-452A-33
9	9	1.0	671	4	US-09-198-452A-468
10	9	1.0	982	4	US-09-556-877-176
11	9	1.0	982	4	US-09-620-412C-176
12	9	1.0	982	4	US-09-598-419-176
13	9	1.0	1006	4	US-09-556-877-190
14	9	1.0	1006	4	US-09-620-412C-190
15	9	1.0	1006	4	US-09-598-419-190
16	9	1.0	1132	4	US-09-198-452A-466
17	8	0.9	172	4	US-09-198-452A-368
18	8	0.9	446	4	US-09-252-991A-17185
19	8	0.9	483	4	US-09-198-452A-27
20	8	0.9	530	4	US-09-198-452A-482
21	8	0.9	609	4	US-09-198-452A-579
22	8	0.9	866	4	US-09-556-877-189
23	8	0.9	866	4	US-09-620-412C-189
24	8	0.9	866	4	US-09-598-419-189
25	8	0.9	880	4	US-09-556-877-175
26	8	0.9	880	4	US-09-620-412C-175
27	8	0.9	880	4	US-09-598-419-175

28	8	0.9	922	4	US-09-198-452A-15	Sequence 15, Appl
29	7	0.8	41	4	US-08-675-499A-12	Sequence 12, Appl
30	7	0.8	46	3	US-09-257-218-10	Sequence 10, Appl
31	7	0.8	46	3	US-09-311-760-10	Sequence 10, Appl
32	7	0.8	46	4	US-08-865-579-10	Sequence 10, Appl
33	7	0.8	46	4	US-10-059-749-10	Sequence 10, Appl
34	7	0.8	56	3	US-09-177-249-166	Sequence 166, Appl
35	7	0.8	73	4	US-09-345-236B-88	Sequence 88, Appl
36	7	0.8	86	4	US-09-198-452A-1279	Sequence 1279, Ap
37	7	0.8	123	4	US-09-252-991A-28665	Sequence 28665, A
38	7	0.8	135	4	US-09-252-991A-27134	Sequence 27134, A
39	7	0.8	141	4	US-09-252-991A-21958	Sequence 21958, A
40	7	0.8	154	4	US-09-198-452A-467	Sequence 467, App
41	7	0.8	161	3	US-09-413-814-15	Sequence 15, Appl
42	7	0.8	230	4	US-09-252-991A-33122	Sequence 33122, A
43	7	0.8	244	3	US-09-003-287-6	Sequence 6, Appl
44	7	0.8	244	3	US-09-003-287-8	Sequence 8, Appl
45	7	0.8	244	3	US-09-518-988-2	Sequence 2, Appl
46	7	0.8	253	4	US-09-252-991A-21300	Sequence 21300, A
47	7	0.8	265	3	US-08-483-857-8	Sequence 8, Appl
48	7	0.8	271	6	5175255-1	Patent No. 5175255
49	7	0.8	302	3	US-08-965-600-3	Sequence 3, Appl
50	7	0.8	302	4	US-09-489-506-3	Sequence 3, Appl

ALIGNMENTS

RESULT 1

US-09-198-452A-472
; Sequence 472, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Grifais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragr
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, frag
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/09/198,452A
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 472
; LENGTH: 927
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
; NAME/KEY: SITE
; LOCATION: 1...927
; OTHER INFORMATION: xaa=unknown or other
US-09-198-452A-472

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QY	563	LEKNPIHWGYQGNWALSQEDTATKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDV	622	
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QY	623	RSIQQLVAVKVRQSQETRGICWEGISNFFHKDSTKTKNGPRHSAGYVGVGATTTLASDNL	682	
Db	622	RSIQQLVAVKVRQSQETRGICWEGISNFFHKDSTKTKNGPRHSAGYVGVGATTTLASDNL	681	
QY	683	ITAAFQCLFGKDRDHFINKNRASAYAAASHLQHLATLSSPLLRYLPGSESEOPVLFDQA	742	
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QY	743	ISYIYSKNTMYTYYTQAPKGESSWYNDGCALELSSLPHTALSGHEGLFHYAFFPKVEAS	802	

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Db 742 ISYISKNTKTYTQAPKGSSWYNDGCALESLPHTALSHBGLFHAYFPFKIVEAS 801
QY 803 YIHDSFKERNITLVRSFSDGLINVSVPIGITPFGRNERASYEATVIIVADVYRKNP 862
Db 802 YIHDSFKERNITLVRSFSDGLINVSVPIGITPFGRNERASYEATVIIVADVYRKNP 861
QY 863 DCTTALLNNTSWKTTGTLNLSRQAGIGRAGIFAFSPNLEVTNLSMEIRGSSRSYNADL 922
Db 862 DCTTALLNNTSWKTTGTLNLSRQAGIGRAGIFAFSPNLEVTNLSMEIRGSSRSYNADL 921
QY 923 GKGQF 928
Db 922 GKGQF 927

RESULT 2

US-09-198-452A-470
; Sequence 470, Application US/09198452A

; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffais, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 470

; LENGTH: 930

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-198-452A-470

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Best Local Similarity 100.0%; Pred. No. 7.9e-07;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIAADSGSLSLA 334

Db 324 GGAIAADSGSLSLA 339

RESULT 3

US-09-198-452A-32

; Sequence 32, Application US/09198452A

; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffais, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 32

; LENGTH: 507

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-198-452A-32

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Best Local Similarity 100.0%; Pred. No. 0.0038;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 615 LMGSFVDVRSIQ 626

Db 199 LMGSFVDVRSIQ 210

RESULT 4

US-09-198-452A-26

; Sequence 26, Application US/09198452A

; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffais, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 26

; LENGTH: 199

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-198-452A-26

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Db 70 GGAIAADSG 79

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US-09-198-452A-31

; Sequence 31, Application US/09198452A

; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffais, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 31

; LENGTH: 427

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-198-452A-31

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Best Local Similarity 100.0%; Pred. No. 0.3;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 416 IVFSGEKLSE 425

Db 412 IVFSGEKLSE 421

RESULT 6

US-09-198-452A-29

; Sequence 29, Application US/09198452A

; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffais, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 29

; LENGTH: 597

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-198-452A-29

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OM protein - protein search, using sw model

Run on: August 22, 2003, 15:28:55 ; Search time 32 Seconds
(without alignments)
1227.015 Million cell updates/sec.

Title: US-09-857-128-14

Perfect score: 4759

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Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 50 summaries

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- 4: /cgn2_6/ptodata/1/1aa/6B_COMB.pap.*
- 5: /cgn2_6/ptodata/1/1aa/PCTUS_COMB.pap.*
- 6: /cgn2_6/ptodata/1/1aa/backfiles.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
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2	1951	41.0	930	4	US-09-198-452A-470
3	1789	37.6	949	4	US-09-198-452A-478
4	1436	30.2	643	4	US-09-198-452A-474
5	1431	30.1	922	4	US-09-198-452A-15
6	1287.5	27.1	597	4	US-09-198-452A-29
7	1201.5	25.2	671	4	US-09-198-452A-468
8	1111	23.3	507	4	US-09-198-452A-32
9	1085	22.8	1132	4	US-09-198-452A-466
10	993.5	20.9	1006	4	US-09-556-877-190
11	993.5	20.9	1006	4	US-09-620-412C-190
12	993.5	20.9	1006	4	US-09-598-419-190
13	991.5	20.8	982	4	US-09-556-877-176
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15	991.5	20.8	982	4	US-09-598-419-176
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18	944.5	19.8	880	4	US-09-598-419-175
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20	925.5	19.4	866	4	US-09-620-412C-189
21	925.5	19.4	866	4	US-09-598-419-189
22	873	18.3	450	4	US-09-198-452A-35
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24	813.5	17.1	494	4	US-09-198-452A-33
25	803.5	16.9	530	4	US-09-198-452A-482
26	770	16.2	483	4	US-09-198-452A-27
27	665	14.0	940	4	US-09-198-452A-500

28	652	13.7	1617	4	US-09-198-452A-1035	Sequence 1035, Ap
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31	600.5	12.6	969	4	US-09-198-452A-501	Sequence 501, App
32	574	12.1	964	4	US-09-556-877-177	Sequence 177, App
33	574	12.1	964	4	US-09-620-412C-177	Sequence 177, App
34	574	12.1	964	4	US-09-598-419-177	Sequence 177, App
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37	557.5	11.7	977	4	US-09-598-419-191	Sequence 191, App
38	557	11.7	822	4	US-09-198-452A-506	Sequence 506, App
39	554.5	11.7	519	4	US-09-198-452A-479	Sequence 479, App
40	543.5	11.4	1530	4	US-09-556-877-178	Sequence 178, App
41	543.5	11.4	1530	4	US-09-620-412C-178	Sequence 178, App
42	543.5	11.4	1530	4	US-09-598-419-178	Sequence 178, App
43	534	11.2	660	4	US-09-198-452A-578	Sequence 578, App
44	504.5	10.6	1776	4	US-09-556-877-179	Sequence 179, App
45	504.5	10.6	1776	4	US-09-620-412C-179	Sequence 179, App
46	504.5	10.6	1776	4	US-09-598-419-179	Sequence 179, App
47	492.5	10.3	230	4	US-09-198-452A-30	Sequence 30, Appl
48	490	10.3	1752	4	US-09-556-877-180	Sequence 180, App
49	490	10.3	1752	4	US-09-620-412C-180	Sequence 180, App
50	490	10.3	1752	4	US-09-598-419-180	Sequence 180, App

ALIGNMENTS

RESULT 1

US-09-198-452A-472
; Sequence 472, Application US/09198452A
; Patent No. 6559294

; GENERAL INFORMATION:

; APPLICANT: Griffls, R.

; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, frag
; thereof and uses thereof, in particular for the diagnosis
; TITLE OF INVENTION: and treatment of infection

; FILE REFERENCE: 9710-003-999

; CURRENT APPLICATION NUMBER: US/09/198,452A

; CURRENT FILING DATE: 1998-11-24

; NUMBER OF SEQ ID NOS: 6849

; SEQ ID NO 472

; LENGTH: 927

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

; NAME/KEY: SITE

; LOCATION: 1...927

; OTHER INFORMATION: Xaa-unknown or other

US-09-198-452A-472

Query Match 97.6%; Score 4646.5; DB 4; Length 927;
Best Local Similarity 98.0%; Pred. No. 0;
Matches 909; Conservative 6; Mismatches 12; Indels 1; Gaps 1;

Qy	1	MKSSLHFLSSSLALPLSLNFSAFAAFAVVEINLPTNSFGPGGYTPPAQTNNADGTYN	60
Db	1	MKSSLHFLSSSLALPLSLNFSAFAAFAVVEINLPTNSFGPGGYTPPAQTNNADGTYN	60
Qy	61	LTGDSVITNAGSPALTATSCFKETTNLSPFGHGYQFLLQNLIDAGANCTFTNTAAKLLS	120
Db	61	LTGDSVITNAGSPALTATSCFKETTNLSPFGHGYQFLLQNLIDAGANCTFTNTAAKLLS	120
Qy	121	FSGFSYLSLIQTNNATGTGTAIKSTGACSTQSNVSCYFGQNFSDNDNGALQGGSSISLSN	180
Db	121	FSGFSYLSLIQTNNATGTGTAIKSTGACSTQSNVSCYFGQNFSDNDNGALQGGSSISLSN	180
Qy	181	PNLTFARNKATQGGALYSTGGITINNTLNSAFSENATNNGGAIYTEASSFSSNKAI	240
Db	181	PNLTFARNKATQGGALYSTGGITINNTLNSAFSENATNNGGAIYTEASSFSSNKAI	240
Qy	241	SFINNSVTATSGGAIYCSSTSAPKPVLTLSNGELNFTGNTAITSGGAIYTDNLVSS	300
Db	241	SFINNSVTATSGGAIYCSSTSAPKPVLTLSNGELNFTGNTAITSGGAIYTDNLVSS	300

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Db 241 SFINNSVTATGATGAIYCSSTAPKPVLTLDNGELNFTGNTATSGGAIYTDNLVLSS 300
Qy 301 GGTPLKNNGYDTAAPLGAIAIADSGSLSLALGDDITFEQNTVVKGASSQTTRNS 360
Db 301 GGTPLKNNSAIDTAAPLGAIAIADSGSLSLALGDDITFEQNTVVKGASSQTTRNS 360
Qy 361 INIGNTNAKIVOLRASQGNITFYDPITTSIAAALSDALNGLPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQGNITFYDPITTSIAAALSDALNGLPDLAGNPAYOGTIVFSG 420
Qy 421 EKLSEAAEAADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSPQSGSTLLMDAGTTLET 480
Db 421 EKLSEAAEAADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSPQSGSTLLMDAGTTLET 480
Qy 481 ADGITNNLVNDSLEKTKKTLKATQASQTVTLSSLSLSDVPSGNYEDVSWNNPQVF 540
Db 481 ADG-SLSITCSQCFRLKDOEATKATQASQTVTLSSLSLSDVPSGNYEDVSWNNPQVF 539
Qy 541 SCLTLTADDPANHTDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAAATLTWTKGY 600
Db 540 SCLTLTADDPANHTDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAAATLTWTKGY 599
Qy 601 NNPERRGTLVANTLWGSFVDRSIQOLVATKROSQETRGTWCEGINSFHHKSTKINK 660
Db 600 NNPERRGTLVANTLWGSFVDRSIQOLVATKROSQETRGTWCEGINSFHHKSTKINK 659
Qy 661 GFRHISAGVVGATTLASDNLTIAAFOLFKDRDHFINKRAYSAAASLHQLATLS 720
Db 660 GFRHISAGVVGATTLASDNLTIAAFOLFKDRDHFINKRAYSAAASLHQLATLS 719
Qy 721 SPSSLRYLPGSESEQVLFDAQISYIYKNTMKTYTQAPKGESWYNDGCALASSLP 780
Db 720 SPSSLRYLPGSESEQVLFDAQISYIYKNTMKTYTQAPKGESWYNDGCALASSLP 779
Qy 781 HTALSHGELFHAYFFPIKVEASYIHQDSFKERNITLVRSDGDLINVSPIGTFERFS 840
Db 780 HTALSHGELFHAYFFPIKVEASYIHQDSFKERNITLVRSDGDLINVSPIGTFERFS 839
Qy 841 RNERASYEATVIYADVYKRNPDCTALLINNTSKWTTGTLNLSRQAGIGRAGIFYAFSPN 900
Db 840 RNERASYEATVIYADVYKRNPDCTALLINNTSKWTTGTLNLSRQAGIGRAGIFYAFSPN 899
Qy 901 LEVTSNLSMEIRGSSRSYNADLGGKQF 928
Db 900 LEVTSNLSMEIRGSSRSYNADLGGKQF 927

RESULT 2

US-09-198-452A-470
Sequence 470, Application US/09198452A
Patent No. 6559294

GENERAL INFORMATION:

APPLICANT: Grifais, R.
TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection
FILE REFERENCE: 9710-003-999
CURRENT APPLICATION NUMBER: US/09/198,452A
CURRENT FILING DATE: 1998-11-24
NUMBER OF SEQ ID NOS: 5849

SEQ ID NO 470
LENGTH: 930
TYPE: PRT

ORGANISM: Chlamydia pneumoniae

US-09-198-452A-470

Query Match 41.0%; Score 1951; DB 4; Length 930;

Best Local Similarity 44.0%; Pred. No. 7,9e-145;

Matches 418; Conservative 166; Mismatches 324; Indels 42; Gaps 20;

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Db 1 MKIPLHKLISSTLVTPLISLTIATYGA--DASLSPTDSFDGAGSGSTFTPKS-TADANGTN 57

Qy 59 YNLGTGDSITNAGSPALTATSCFKETTNLISFOGHGYOFLQLONIDAGNC--TFTNTAANK 117
Db 58 YVLGNVYINDAGKGTALTGCCTFTTGDLTFTGKGYSFSTVFDAGSNAGAAATTTADK 117
Qy 118 LLSFGSFLSYLSLIOT--TNATGTGAIKSTGACISQSNYSYFQGNFSD--NGGALQG 172
Db 118 ALTTFTGFSNLSFIAAPGTTVASGKTLSSAGALNLTNDGTLILFSQNVSNNEANGGAITA 177
Qy 173 SSISLSLN--PNLTFAKNKATQKGGALYSTGGTITNLTNSAFSSENTAANGGALITYEAS 231
Db 178 KTLISGNTSSITFTTSNKAJGAIYSSAAASISGNTGOLVFMNKGFTGGALGFAS 237
Qy 232 SPISNKAISFINNNSVTATGATGAIYCSSTAPKPVLTLDNGELNFTGNTATSGGAI 291
Db 238 SSITONSSLSFSGNTATDAAGKGGALICEKT--GETPTLTISGNKSLTFAENSSVTOGGAI 296
Qy 292 YTDNLVSSGPTPLFKNNSGYDTAAPLGAIAIADSGSLSLALGDDITFEQNTVVKGAS 351
Db 297 CAHGLDLSSAAGPTLFSNNRCGNTAAGKGAIAIADSGSLSLALGDDITFEQNTVVKGAS 354
Qy 352 SSOTTRNSINIGNTNAKIVOLRASQGNITFYDPITTSIAAALSDALNGLPDLAGNPA 411
Db 355 SAPSTRAIYLG--SSAKITNLRAAQGSIIFYDPIASNTTGA--SDVLTINQDPSNPLD 412
Qy 412 YOGTIVFSGEKLSEAAEAADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSPQSGSTILL 471
Db 413 YSGTIVFSGEKLSEAAEAADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSPQSGSTILL 472
Qy 472 MDAGTTLET--ADGITNNLVNDSLEKTKKTLKATQASQTVTLSSLSLSDVPSGNYE 530
Db 473 MOPGTKLADTEATLSLTKLVVDLSALEGNKSVSIETAGANKTITLTPLVFODSSGNFE 532
Qy 531 DVSNWNP-----QVFSCLTLTADDPANHTDLAADPLEKNPIHWGYOGNWLWSQEDTA 585
Db 533 SHTINQATQPLVFTTAATAASD-----IYDALLTSPVOTPEPHGYOGHWEATW-ADTS 587
Qy 586 TKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDRSIQOLVATKROSQETRGIMCE 645
Db 588 T-AKSGTMTWTTGTYNPNPERRASVVPDLSWASFTDITLQOIMTSQANSIYQORGLWAS 646
Qy 646 GISNFFHKDSTKINKGFRHISAGVVGATTLASDNLTIAAFOLFKDRDHFINKRAYS 705
Db 647 GTANFFHKDSTKINKGFRHISAGVVGATTLASDNLTIAAFOLFKDRDHFINKRAYS 706
Qy 706 AYAASLHQLH-----LATLSSPSLLRYLPGSESEQ-----PVLFDQAQISYIYKNTMKTYTQ 758
Db 707 NYLASLYLQHRAFLGGLPMPSF-----GSITDMLKDIPLILNAQLSYSTNDMDTRTYS 761
Qy 759 APKGESSWYNDGCALASSLPHTALSHGELFHAYFFPIKVEASYIHQDSFKERNITLVR 818
Db 762 YPEAAGSWTNNSGALSLALYLPKEAPFQGYFPFELKPAVYSROONFKESGAE-AR 820
Qy 819 SFDSGDILNVSPIGTFERFSRNERASYEATVIYADVYKRNPDCTALLINNTSKWTT 878
Db 821 AFDDGDLNVSPIGTFERFSRNERASYEATVIYADVYKRNPDCTALLINNTSKWTT 880
Qy 879 GTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADLGGKQF 928
Db 881 CKNLARQAFSLASAGSHLTLSPHVELSGEAAAYELRGAHIYVNDGCLRYSP 930

RESULT 3

US-09-198-452A-478
Sequence 478, Application US/09198452A
Patent No. 6559294

GENERAL INFORMATION:

APPLICANT: Grifais, R.
TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection
FILE REFERENCE: 9710-003-999
CURRENT APPLICATION NUMBER: US/09/198,452A

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OM nucleic - nucleic search, using sw model

Run on: August 24, 2003, 10:40:22 ; Search time 128.664 Seconds
(without alignments)
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Title: US-09-857-128-6
Perfect score: 2784
Sequence: 1 atgaatctctcttcattg.....ttggaggtaagttccagttc 2784

Scoring table: IDENTITY_NUC
Gapop 10_0 , Gapext 1.0

Searched: 569978 seqs, 220691566 residues 1139956

total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 50 summaries

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6: /cgn2_6/ptodata/2/ina/backfiles.seq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	2734.2	98.2	1230025	4	US-09-198-452A-1	Sequence 1, Appli
2	510.8	18.3	1230025	4	US-09-198-452A-1	Sequence 1, Appli
3	95.8	3.4	3021	4	US-09-556-877-182	Sequence 182, App
4	95.8	3.4	3021	4	US-09-620-412C-182	Sequence 182, App
5	95.8	3.4	3021	4	US-09-598-419-182	Sequence 182, App
6	95	3.4	2949	4	US-09-556-877-170	Sequence 170, App
7	95	3.4	2949	4	US-09-620-412C-170	Sequence 170, App
8	95	3.4	2949	4	US-09-598-419-170	Sequence 170, App
9	49.2	1.8	2601	4	US-09-556-877-181	Sequence 181, App
10	49.2	1.8	2601	4	US-09-620-412C-181	Sequence 181, App
11	49.2	1.8	2601	4	US-09-598-419-181	Sequence 181, App
12	49.2	1.8	2643	4	US-09-556-877-169	Sequence 169, App
13	49.2	1.8	2643	4	US-09-620-412C-169	Sequence 169, App
14	49.2	1.8	2643	4	US-09-598-419-169	Sequence 169, App
15	41.2	1.5	7218	1	US-08-232-463-14	Sequence 14, Appl
16	37.2	1.3	2076	4	US-09-620-412C-312	Sequence 312, App
17	37.2	1.3	2076	4	US-09-598-419-312	Sequence 312, App
18	36.6	1.3	1752	4	US-09-620-412C-352	Sequence 352, App
19	36.6	1.3	1752	4	US-09-598-419-352	Sequence 352, App
20	36.6	1.3	2466	4	US-09-556-877-187	Sequence 187, App
21	36.6	1.3	2466	4	US-09-620-412C-187	Sequence 187, App
22	36.6	1.3	5331	4	US-09-556-877-173	Sequence 173, App
23	36.6	1.3	5331	4	US-09-620-412C-173	Sequence 173, App
24	36.6	1.3	5331	4	US-09-598-419-173	Sequence 173, App
25	36.6	1.3	1860	4	US-09-620-412C-308	Sequence 308, App
26	35.6	1.3	1860	4	US-09-598-419-308	Sequence 308, App
27	35.6	1.3	1860	4	US-09-598-419-308	Sequence 308, App

28	35.6	1.3	1940	4	US-08-936-165A-251	Sequence 251, App
29	35.2	1.3	3087	4	US-09-328-352-1623	Sequence 1623, Ap
c	34.4	1.2	1314	4	US-09-134-001C-581	Sequence 581, App
31	34.4	1.2	1896	4	US-09-620-412C-324	Sequence 324, App
32	34.4	1.2	1896	4	US-09-598-419-324	Sequence 324, App
33	33.8	1.2	6733	3	US-09-124-541-2	Sequence 2, Appli
c	33.6	1.2	1023	4	US-09-107-532A-1585	Sequence 1585, Ap
c	33.6	1.2	1664976	4	US-08-916-421B-1	Sequence 1, Appli
35	33.4	1.2	630	4	US-09-439-313-358	Sequence 358, App
37	33.4	1.2	630	4	US-09-352-616A-358	Sequence 358, App
38	33.4	1.2	5738	1	US-08-409-995-3	Sequence 3, Appli
39	33.4	1.2	5738	3	US-08-685-467-3	Sequence 35, Appli
40	33.4	1.2	7253	4	US-09-268-347-35	Sequence 3, Appli
41	33.4	1.2	7291	3	US-08-913-942-3	Sequence 1, Appli
42	33.4	1.2	1830121	4	US-09-557-884-1	Sequence 1, Appli
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c	33.2	1.2	2192	3	US-08-942-001-1	Sequence 1, Appli
c	33.2	1.2	2192	3	US-09-337-386-1	Sequence 1, Appli
c	33.2	1.2	2192	4	US-09-846-922-1	Sequence 1, Appli
47	33	1.2	1664976	4	US-08-916-421B-1	Sequence 1, Appli
c	32.8	1.2	1200	1	US-08-357-264-2	Sequence 2, Appli
c	32.8	1.2	1200	1	US-08-672-514-2	Sequence 2, Appli
c	32.8	1.2	3087	4	US-09-328-352-1623	Sequence 1623, Ap

ALIGNMENTS

RESULT 1
US-09-198-452A-1
; Sequence 1, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Griffiths, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragment
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, pr
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/09/198,452A
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 1
; LENGTH: 1230025
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)..(15000)
OTHER INFORMATION: n-a or c or g or t
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Query Match 98.2%; Score 2734.2; DB 4; Length 1230025;							
Best Local Similarity 99.6%; Pred. No. 0;							
Matches 2772; Conservative 0; Mismatches 9; Indels 3; Gaps 3;							
QY	1	ATGAAATCCTCTCTTCATGTTGTTTAAATCTCGTCATCTTTAGCACATTCCTTGTGCTACTA	60				
DB	510660	ATGAAATCCTCTCTTCATGTTGTTTAAATCTCGTCATCTTTAGCACATTCCTTGTGCTACTA	510719				

Db	511500	GGAAATACAGCAATTTACTAGTGGTGGGCGAATTTATACAGCAATTTAGTTCTTTCTTCT	511559
Qy	901	GGAGGACCTACGCTTTTAAAAACAACCTGCTATGATACCTGACGCTCCCTTAGGAGGA	960
Db	511560	GGAGGACCTACGCTTTTAAAAACAACCTGCTATGATACCTGACGCTCCCTTAGGAGGA	511619
Qy	961	GCAATTTGGATTGCTGACTCTGGATCTTTTGGATCTTTTCGGCTCTTGGTGGAGACATCACT	1020
Db	511620	GCAATTTGGATTGCTGACTCTGGATCTTTTGGATCTTTTCGGCTCTTGGTGGAGACATCACT	511679
Qy	1021	TTTGAAGGAACACAGTAGTCAAAAGGAGCTTCTTGAGTCAGACCACTACCGAGAAATTTCT	1080
Db	511680	TTTGAAGGAACACAGTAGTCAAAAGGAGCTTCTTGAGTCAGACCACTACCGAGAAATTTCT	511739
Qy	1081	ATTAACATCGGAAACACCAATGCTTAAGATTGTACAGCTGCGAGCCCTCTCAAGGCAATACT	1140
Db	511740	ATTAACATCGGAAACACCAATGCTTAAGATTGTACAGCTGCGAGCCCTCTCAAGGCAATACT	511799
Qy	1141	ATCTACTTCTATGATCTTATAACAATAGCATCACTGCAGCTCTCTCAGATGCTCTTAAAC	1200
Db	511800	ATCTACTTCTATGATCTTATAACAATAGCATCACTGCAGCTCTCTCAGATGCTCTTAAAC	511859
Qy	1201	TTAAATGCTCTGACCTTGCAGGGAATCCTGCATATCAAGGAACCATCGTATTTTCTGGA	1260
Db	511860	TTAAATGCTCTGACCTTGCAGGGAATCCTGCATATCAAGGAACCATCGTATTTTCTGGA	511919
Qy	1261	GAGAGCTCTCGGAAGCAGAGCTGCAAGAGCTGATAATCTCAAAATCTACAATTCAGCAA	1320
Db	511920	GAGAGCTCTCGGAAGCAGAGCTGCAAGAGCTGATAATCTCAAAATCTACAATTCAGCAA	511979
Qy	1321	CCTCTAACTCTTGGGGAGGCAACTCTCTCTTAAATCAGGAGTCACTTATGTTGCTAAG	1380
Db	511980	CCTCTAACTCTTGGGGAGGCAACTCTCTCTTAAATCAGGAGTCACTTATGTTGCTAAG	512039
Qy	1381	TCCTTTTCGCAATCTCCGGGCTCTACCTCTCTCATGATGATGAGGAGGACCATTTAGAAACC	1440
Db	512040	TCCTTTTCGCAATCTCCGGGCTCTACCTCTCTCATGATGATGAGGAGGACCATTTAGAAACC	512099
Qy	1441	GCTGATGGGATCACTATCAATAATCTTGTCTCAATGTAGATTCTTAAAGAGACCAAG	1500
Db	512100	GCTGAT - GGATCACTATCAATAATC - TGTTCTCAATGTAGATTCTTAAAGAGACCAAG	512157
Qy	1501	AAGGCGAGCTTAAAGCAACAGCAAGTCAAGTCACTTTTATCTGGATCGCTCTCT	1560
Db	512158	AA - GNTAGCTTAAAGCAACAGCAAGTCAAGTCACTTTTATCTGGATCGCTCTCT	512216
Qy	1561	CTTGTAGATCTTCTGAAATGTCTAGAAAGATGCTCTTGGAAATTAACCTCAAGTCTTT	1620
Db	512217	CTTGTAGATCTTCTGAAATGTCTAGAAAGATGCTCTTGGAAATTAACCTCAAGTCTTT	512276
Qy	1621	TCCTGTCTCACTCTTACTGCTGAGACCCCGGCAATTTACATCAGAGCTTACTGCT	1680
Db	512277	TCCTGTCTCACTCTTACTGCTGAGACCCCGGCAATTTACATCAGAGCTTACTGCT	512336
Qy	1681	GATCCCTAGAAAAAATCTTATCCATTTGGGATACCAAGGAAATTTGGCAATTTCTTTGG	1740
Db	512337	GATCCCTAGAAAAAATCTTATCCATTTGGGATACCAAGGAAATTTGGCAATTTCTTTGG	512396
Qy	1741	CAAGAGGATCTGGCACTAAATCCAAAGCAGCGACTCTTACCTGGACAAAAACAGGATAC	1800
Db	512397	CAAGAGGATCTGGCACTAAATCCAAAGCAGCGACTCTTACCTGGACAAAAACAGGATAC	512456
Qy	1801	AATCCGAATCTGAGCGTCTGGAACTTAGTTGCTTAACGCTATGGGGATCTCTTTGTT	1860
Db	512457	AATCCGAATCTGAGCGTCTGGAACTTAGTTGCTTAACGCTATGGGGATCTCTTTGTT	512516
Qy	1861	GATGTCGCTCCATACAAAGCTTTGTAGCCACTTAAAGTACGCCAATCTCAAGAACTCGC	1920
Db	512517	GATGTCGCTCCATACAAAGCTTTGTAGCCACTTAAAGTACGCCAATCTCAAGAACTCGC	512576
Qy	1921	GGCATCTGGTGTGAAGGATCTCGAACTTCTTCCATAAAGATAGCAGGAATATAATAA	1980

Db 512577 GGCATCTGGTGTGAAGGATCTCGAAGCTTCTTCCATAAGATACGACGAAGATAATAA 512636
; Qy 1981 GGTTCGCCACATCAAGTGCAGGTTATGTTGTAGAGCGACTACAACTTAGCTTCTGAT 2040
; Db 512637 GGTTCGCCACATCAAGTGCAGGTTATGTTGTAGAGCGACTACAACTTAGCTTCTGAT 512696
; Qy 2041 AATCTTATCACTGCAGCCTTCTGCCAATATATTCGGGAAGATAGAGATCACTTTATAAT 2100
; Db 512697 AATCTTATCACTGCAGCCTTCTGCCAATATATTCGGGAAGATAGAGATCACTTTATAAT 512756
; Qy 2101 AAAAATAGAGCTTCTGCTATGACGCTTCTCCATCTCCAGCATCTAGCGACTTCTCT 2160
; Db 512757 AAAAATAGAGCTTCTGCTATGACGCTTCTCCATCTCCAGCATCTAGCGACTTCTCT 512816
; Qy 2161 TCTCCAGCTTGTATGATCTACCTACCTTCTCCGATCTGAAAGTGGAGCGCTGCTCTTTGAT 2220
; Db 512817 TCTCCAGCTTGTATGATCTACCTACCTTCTCCGATCTGAAAGTGGAGCGCTGCTCTTTGAT 512876
; Qy 2221 GCTCAGATCAGCTATATCTATGATAAATACTATGAAACCTTATACACCCCAAGCACCA 2280
; Db 512877 GCTCAGATCAGCTATATCTATGATAAATACTATGAAACCTTATACACCCCAAGCACCA 512936
; Qy 2281 AAGGGAGAGAGCTCGTGTATATGACGCTTCTGCTCTGGAAGTGGAGCTGCGCTACCA 2340
; Db 512937 AAGGGAGAGAGCTCGTGTATATGACGCTTCTGCTCTGGAAGTGGAGCTGCGCTACCA 512996
; Qy 2341 CACACTGCTTTAAGCCATGAGGCTCTCTCCAGCGTATTTCTTCTTCATCAAGTAGAA 2400
; Db 512997 CACACTGCTTTAAGCCATGAGGCTCTCTCCAGCGTATTTCTTCTTCATCAAGTAGAA 513056
; Qy 2401 GCTTCGTACATACACCAAGATAGCTTCAAGAGAGCTAATCTACCTTGGTACCATCTTTC 2460
; Db 513057 GCTTCGTACATACACCAAGATAGCTTCAAGAGAGCTAATCTACCTTGGTACCATCTTTC 513116
; Qy 2461 GATAGCGCTGATTTAATTAACGCTCTCTGCTTATGGAATTAACCTTCGAGAGATCTCG 2520
; Db 513117 GATAGCGCTGATTTAATTAACGCTCTCTGCTTATGGAATTAACCTTCGAGAGATCTCG 513176
; Qy 2521 AGAACAGAGCGTGGCTTTACGAGCTTCTGCTATGCTATGCTGCGGATGCTTATCGTAAG 2580
; Db 513177 AGAACAGAGCGTGGCTTTACGAGCTTCTGCTATGCTATGCTGCGGATGCTTATCGTAAG 513236
; Qy 2581 AATCCTGACTGCAGCAGCTCTCTTAATCAACATACCTCTGGAAGAACTACAGGAACG 2640
; Db 513237 AATCCTGACTGCAGCAGCTCTCTTAATCAACATACCTCTGGAAGAACTACAGGAACG 513296
; Qy 2641 AATCTCTCAAGACAAGCTGTATCGGAAGAGCAGGATCTTTATGCTTCTCTCTCCAAAT 2700
; Db 513297 AATCTCTCAAGACAAGCTGTATCGGAAGAGCAGGATCTTTATGCTTCTCTCTCCAAAT 513356
; Qy 2701 CTTGAGTCAAGTAACCTATCTATGGAATTCGTTGGATCTTTCAGCAGCTACAATGCA 2760
; Db 513357 CTTGAGTCAAGTAACCTATCTATGGAATTCGTTGGATCTTTCAGCAGCTACAATGCA 513416
; Qy 2761 GATCTTGGAGTAAGTTCCAGTTC 2784
; Db 513417 GATCTTGGAGTAAGTTCCAGTTC 513440

RESULT 2

US-09-198-452A-1/c
; Sequence 1, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Griffiths, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention and treatment of infection
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/09/198,452A
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 1

LENGTH: 1230025
TYPE: DNA
ORGANISM: Chlamydia pneumoniae
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LOCATION: (1)..(15000)
OTHER INFORMATION: n-a or c or g or t
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OTHER INFORMATION: n-a or c or g or t
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OTHER INFORMATION: n-a or c or g or t
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LOCATION: (330001)..(345000)
OTHER INFORMATION: n-a or c or g or t

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OM nucleic - nucleic search, using sw model

Run on: August 24, 2003, 20:03:39 ; Search time 135.821 Seconds
(without alignments)
9586.708 Million cell updates/sec

Title: US-09-857-128-5
Perfect score: 2950
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Scoring table: OLIGO_NUC
Gapop 60.0 , Gapext 60.0

Searched: 569978 seqs, 220691566 residues

Word size : 0

Total number of hits satisfying chosen parameters: 1139956

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 50 summaries

Database : Issued Patents.NA.*
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3: /cgn2_6/ptodata/2/ina/6A.COMB.seq.*
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5: /cgn2_6/ptodata/2/ina/PCTUS.COMB.seq.*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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3	20	0.7	20	4	US-09-198-452A-2357
4	20	0.7	20	4	US-09-198-452A-2357
5	20	0.7	20	4	US-09-198-452A-4850
6	20	0.7	20	4	US-09-198-452A-4851
7	20	0.7	20	4	US-09-198-452A-6494
8	20	0.7	20	4	US-09-198-452A-6495
9	20	0.7	20	4	US-09-198-452A-6496
10	20	0.7	20	4	US-09-198-452A-6497
11	20	0.7	20	4	US-09-198-452A-6498
12	20	0.7	20	4	US-09-198-452A-6499
13	20	0.7	20	4	US-09-198-452A-6500
14	20	0.7	20	4	US-09-198-452A-6693
15	20	0.7	20	4	US-09-198-452A-6694
16	20	0.7	20	4	US-09-198-452A-6695
17	20	0.7	20	4	US-09-198-452A-6696
18	20	0.7	20	4	US-09-198-452A-6697
19	19	0.6	2772	4	US-09-198-452A-6698
20	18	0.6	21	6	5182262-4
21	18	0.6	47	4	US-09-422-978-29
22	18	0.6	193	3	US-09-221-298-58
23	18	0.6	328	4	US-09-357-787-10
24	18	0.6	874	1	US-08-469-667-3
25	18	0.6	874	4	US-09-224-110-3
26	18	0.6	874	5	PCT-US95-07289-3
27	18	0.6	1880	1	US-08-247-475-49

ALIGNMENTS

RESULT 1

US-09-198-452A-1
; Sequence 1, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Grifais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragment thereof and uses thereof, in particular for the diagnosis, p
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/09/198,452A
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 1
; LENGTH: 1230025
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(15000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc_feature
; LOCATION: (15001)..(30000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc_feature
; LOCATION: (30001)..(45000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc_feature
; LOCATION: (45001)..(60000)
; OTHER INFORMATION: n=a or c or g or t
; NAME/KEY: misc_feature
; LOCATION: (60001)..(75000)
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; NAME/KEY: misc_feature
; LOCATION: (120001)..(135000)
; OTHER INFORMATION: n=a or c or g or t

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c 29	18	0.6	1880	1	US-08-191-866D-80	Sequence 80, Appl
c 30	18	0.6	1880	1	US-08-674-169-49	Sequence 49, Appl
c 31	18	0.6	1880	2	US-08-185-949B-80	Sequence 80, Appl
c 32	18	0.6	2373	3	US-08-789-275-1	Sequence 1, Appl
c 33	18	0.6	3218	2	US-08-677-862-1	Sequence 1, Appl
c 34	18	0.6	3218	3	US-09-252-571-1	Sequence 1, Appl
c 35	18	0.6	3218	3	US-09-434-065-1	Sequence 1, Appl
c 36	18	0.6	3805	4	US-09-220-132-9	Sequence 9, Appl
c 37	18	0.6	6567	4	US-09-328-352-3637	Sequence 3637, Ap
c 38	18	0.6	90541	4	US-09-759-359A-3	Sequence 3, Appl
c 39	17	0.6	179	1	US-08-248-474-8	Sequence 8, Appl
c 40	17	0.6	179	3	US-08-756-849-8	Sequence 8, Appl
c 41	17	0.6	321	2	US-08-810-572A-3	Sequence 3, Appl
c 42	17	0.6	321	4	US-09-290-333-3	Sequence 3, Appl
c 43	17	0.6	321	4	US-09-782-857A-3	Sequence 3, Appl
c 44	17	0.6	415	3	US-08-793-035-5	Sequence 3, Appl
c 45	17	0.6	502	3	US-09-084-120-19	Sequence 19, Appl
c 46	17	0.6	551	3	US-08-750-141A-5	Sequence 5, Appl
c 47	17	0.6	804	4	US-09-252-991A-950	Sequence 950, App
c 48	17	0.6	1155	3	US-08-793-035-2	Sequence 2, Appl
c 49	17	0.6	1185	3	US-08-793-035-1	Sequence 1, Appl
c 50	17	0.6	1350	4	US-09-252-991A-1098	Sequence 1098, Ap

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Mon Aug 25 09:44:03 2003

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Db 513196 ACAGAGCTACTGTCTATCTAGCTTGGCGATGCTTATCGTAAGATCTCTGATCAGCAGACAG 513255
QY 2700 CTCTCTTAATCAACAATACCTCGTGGAAACTACAGAACGAATCTCTCAAGACAAGCTG 2759
Db 513256 CTCTCTTAATCAACAATACCTCGTGGAAACTACAGAACGAATCTCTCAAGACAAGCTG 513315
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QY 2880 AGTCTTAAAGCGTCTCTGATCTTTCAGGAAATCTAAGAGATCTCTGATCTTCTAGGGA 2939
Db 513436 AGTCTTAAAGCGTCTCTGATCTTTCAGGAAATCTAAGAGATCTCTGATCTTCTAGGGA 513495
QY 2940 CTCTCAAGA 2950
Db 513496 CTCTCAAGA 513506

RESULT 2

US-09-198-452A-2353

25 09:44:03

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; Sequence 2353, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Griffais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fi
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 2353
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
US-09-198-452A-2353

Query Match 0.7%; Score 20; DB 4; Length 20;
Best Local Similarity 100.0%; Pred. No. 5.6;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 CTCTTGGTGGAGACATCACT 20

RESULT 3

US-09-198-452A-2357
; Sequence 2357, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Griffais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fi
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis
; FILE REFERENCE: 9710-003-999
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 2357
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
US-09-198-452A-2357

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Best Local Similarity 100.0%; Pred. No. 5.6;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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; Sequence 4850, Application US/09198452A
; Patent No. 6559294
; GENERAL INFORMATION:
; APPLICANT: Griffais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fi
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT FILING DATE: 1998-11-24
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 4850
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Chlamydia pneumoniae
US-09-198-452A-4850

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(without alignments)
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18: em_gss_inv:**
19: em_gss_pla:**
20: em_gss_vrt:**
21: em_gss_fun:**
22: em_gss_mam:**
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25: em_gss_rod:**
26: em_gss_phg:**
27: em_gss_vrl:**
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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c 8	21	0.7	416	10	BE610180
c 9	21	0.7	440	12	BI970722
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13	21	0.7	554	13	BQ298955
14	21	0.7	565	12	BI427644
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16	21	0.7	582	13	BU083648
17	21	0.7	628	14	CD410311
18	21	0.7	669	14	CD401694
c 19	21	0.7	754	13	BU131172
c 20	21	0.7	776	9	AI729484
c 21	20	0.7	87	14	CB922723
c 22	20	0.7	192	14	CB918259
c 23	20	0.7	243	28	AZ121228
c 24	20	0.7	252	9	AV369842
c 25	20	0.7	297	14	X61849
26	20	0.7	299	10	BB264195
27	20	0.7	359	9	AL840303
c 28	20	0.7	407	14	CB384434
c 29	20	0.7	413	10	BF114396
30	20	0.7	419	13	BQ505818
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36	20	0.7	499	9	AL830644
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c 38	20	0.7	525	28	AZ786622
c 39	20	0.7	529	13	BU773972
c 40	20	0.7	546	28	AZ006461
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c 44	20	0.7	577	14	CB006226
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ALIGNMENTS

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LOCUS AQ341814/c
DEFINITION RPC111-113B11.TV RPCI-11 Homo sapiens genomic clone RPCI-11-113B11, genomic survey sequence.
ACCESSION AQ341814
VERSION AQ341814.1
KEYWORDS GI:4166710
SOURCE GSS.
ORGANISM Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
REFERENCE 1 (bases 1 to 459)
AUTHORS Zhao,S., Adams,M.D., Nierman,W., Malek,J., de Jong,P. and Venter,J.C.
TITLE Use of BAC End Sequences from Library RPCI-11 for Sequence-Ready Map Building
JOURNAL Unpublished
COMMENT Other_GSSs: RPC111-113B11.TJ
Contact: Shaying Zhao, William Nierman, Mark Adams
Department of Eukaryotic Genomics
The Institute for Genomic Research

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OM protein - nucleic search, using frame_plus_p2n model

Run on: August 24, 2003, 01:44:58 ; Search time 5731 Seconds
(without alignments)
6624.347 Million cell updates/sec

Title: US-09-857-128-14

Perfect score: 4759

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Minimum DB seq length: 0

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Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 50 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	4739	99.6	2787	6	AX349511 Sequence
2	4739	99.6	10757	1	AE001628 Chlamydia
3	4739	99.6	12676	1	AE002192 Chlamydia
4	4739	99.6	17280	1	CPN133034 Chlamydia
5	4739	99.6	300650	1	AP002546 Chlamydia
6	4726	99.3	2787	6	A81839 Sequence 13
7	4666.5	98.1	110000	6	AR310754_05 Continuation (6 of
8	1971	41.4	2787	6	A81835 Sequence 9
9	1954	41.1	12127	1	AE002235 Chlamydia
10	1954	41.1	16448	1	AE001587 Chlamydia
11	1954	41.1	26920	1	CPN133035 Chlamydia
12	1954	41.1	299650	1	AP002545 Chlamydia
13	1951	41.0	10026	1	AE002193 Chlamydia
14	1950	41.0	2781	6	AX662119 Sequence
15	1950	41.0	2781	6	AX666191 Sequence
16	1930	41.0	4926	1	CPU72499 Chlamydia
17	1949	41.0	2793	6	AX349523 Chlamydia
18	1949	41.0	15068	1	AE001627 Chlamydia
19	1942	40.8	110000	6	AR310754_00 Continuation (6 of
20	1941	40.8	2757	6	A81837 Sequence 11
21	1941	40.8	300512	1	AE016995 Chlamydia
22	1940	40.8	2793	6	A81841 Sequence 15
23	1920	40.3	2815	6	A81829 Sequence 3
24	1920	40.3	12676	1	CPN133034 Chlamydia
25	1920	40.3	17280	1	AP002546 Chlamydia
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33	1795	37.7	110000	6	AR310754_04 Continuation (5 of
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35	1787	37.5	2787	6	AX349593 Sequence 1
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39	1625.5	34.2	2520	6	AX6662085 Sequence
40	1625.5	34.2	2520	6	AX666157 Sequence
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42	1625.5	34.2	6234	1	CPU65943 Chlamydia
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45	1447	30.4	10766	1	AE001585 Chlamydia
46	1445	30.4	10044	1	AE002237 Chlamydia
47	1444	30.3	3052	6	A81831 Sequence 5
48	1372.5	28.8	2526	6	AX349617 Sequence
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 Bacteria; Chlamydiales; Chlamydiales; Chlamydiaceae; Chlamydia. 1.
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 AUTHORS Kalman, S., Mitchell, W., Marathe, R., Lammel, C., Fan, J., Hyman, R. W.,
 Olinger, L., Grimwood, J., Davis, R. W. and Stephens, R. S.
 TITLE Comparative genomes of Chlamydia pneumoniae and C. trachomatis
 JOURNAL Nat. Genet. 21 (4), 385-389 (1999)
 MEDLINE 99206606
 PUBMED 10192388
 REFERENCE 2 (bases 1 to 10757)
 AUTHORS Kalman, S., Mitchell, W., Marathe, R., Lammel, C., Fan, J., Olinger, L.,
 Grimwood, J., Davis, R. W. and Stephens, R. S.
 TITLE Direct Submission
 JOURNAL Submitted (01-DEC-1998) Program in Infectious Diseases, University
 of California, 235 Earl Warren Hall, Berkeley, CA 94720, USA
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 REFERENCE 1 (bases 1 to 12676)
 AUTHORS Read,T.D., Brunham,R.C., Shen,C., Gill,S.R., Heidelberg,J.F., White,O., Hickey,E.K., Peterson,J., Umayam,L.A., Utterback,T., Berry,K., Bass,S., Linher,K., Weidman,J., Khouri,H., Craven,B., Bowman,C., Dodson,R., Gwinn,M., Nelson,W., DeBoy,R., Kolonay,J., McClarty,G., Salzberg,S.L., Eisen,J. and Fraser,C.M.
 TITLE Genome sequences of Chlamydia trachomatis MOPn and Chlamydia pneumoniae AR39
 JOURNAL Nucleic Acids Res. 28 (6), 1397-1406 (2000)
 MEDLINE 20150255
 PUBMED 10684935
 REFERENCE 2 (bases 1 to 12676)
 AUTHORS Read,T.D., Brunham,R.C., Shen,C., Gill,S.R., Heidelberg,J.F., White,O., Hickey,E.K., Peterson,J., Umayam,L.A., Utterback,T., Berry,K., Bass,S., Linher,K., Weidman,J., Khouri,H., Craven,B., Bowman,C., Dodson,R., Gwinn,M., Nelson,W., DeBoy,R., Kolonay,J., McClarty,G., Salzberg,S.L., Eisen,J. and Fraser,C.M.
 TITLE Direct Submission
 JOURNAL Submitted (01-MAR-2000) The Institute for Genomic Research, 9712 Medical Center Dr, Rockville, MD 20850, USA
 COMMENT On Jun 1, 2000 this sequence version replaced gi:7189226.
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REFERENCE
 1 Shirai, M., Hirakawa, H., Ouchi, K., Tabuchi, M., Kishi, F., Kimoto, M.,
 Takeuchi, A., Nishida, J., Shibata, K., Fujinaga, R., Yoneda, H.,
 Matsushina, H., Tanaka, C., Furukawa, S., Miura, K., Nakazawa, A.,
 Ishii, K., Shiba, T., Hattori, M., Kuhara, S. and Nakazawa, T.
 Comparison of outer membrane protein genes omp and pmp in the whole
 genome sequences of Chlamydia pneumoniae isolates from Japan and
 the United States
 J. Infect. Dis. 181 Suppl 3, S524-S527 (2000)
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TITLE
 2 Shirai, M., Hirakawa, H., Kimoto, M., Tabuchi, M., Kishi, F., Ouchi, K.,
 Shiba, T., Ishii, K., Hattori, M., Kuhara, S. and Nakazawa, T.
 Comparison of whole genome sequences of Chlamydia pneumoniae J138
 from Japan and CWL029 from USA
 Nucleic Acids Res. 28 (12), 2311-2314 (2000)
 20330349

JOURNAL
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 3 (bases 1 to 300650)
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 AUTHORS Shirai, M.
 TITLE Direct Submission
 JOURNAL Submitted (04-JUL-2000) Mutsunori Shirai, Yamaguchi University
 School of Medicine, Department of Microbiology; 1-1-1
 Minamikoogushi, Ube, Yamaguchi 755-8505, Japan
 (E-mail: mshirai@pc.cc.yamaguchi-u.ac.jp, tel: 81-836-22-2227,
 Fax: 81-836-22-2415)
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US-09-857-128-14 (1-928) x AP002546 (1-300650)

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RESULT 7

WPCOMMENT

Sequence split into 13 fragments LOCUS AR310754 Accession AR310754

Fragment Name	Begin	End
AR310754_00	1	110000
AR310754_01	100001	210000
AR310754_02	200001	310000
AR310754_03	300001	410000
AR310754_04	400001	510000
AR310754_05	500001	610000
AR310754_06	600001	710000
AR310754_07	700001	810000
AR310754_08	800001	910000
AR310754_09	900001	1010000
AR310754_10	1000001	1110000
AR310754_11	1100001	1210000
AR310754_12	1200001	12300025

Continuation (6 of 13) of AR310754 from base 500001 (AR310754 Sequence 1 from patent US

Alignment Scores:

Pred. No.: 7.4e-266 Length: 110000
Score: 4666.50 Matches: 923
Percent Similarity: 99.46% Conservative: 0
Best Local Similarity: 99.46% Mismatches: 5
Query Match: 98.06% Indels: 3

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DB: 6 Gaps: 0
US-09-857-128-14 (1-928) x AR310754_05 (1-110000)
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Db 10780 GSACCAAGGACCTTACACTCTCTCCAGCCCAACAAATGCAGATGCACTATCTATAAT 10839
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QY 121 PheSerGlyPheSerTyrLeuSerLeuIleGlnThrThrAsnAlaThrThrGlyThrGly 140
Db 11020 TTTTCAGGATCTCTTATTTGTCATTAATACAAACCAACCAAGCTCTACCAAGAACAGGA 11079
QY 141 AlaIleLysSerThrGlyAlaCysSerIleGlnSerAsnTyrSerCysTyrPheGlyGln 160
Db 11080 GCATCAAGTCCACAGGAGCTTGTCTTATCTAGTCGAACATATAGTTGCTACTTTGGCCAA 11139
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Db 11260 GGAGGGATTACAATTAACAATACGTTAACTCAGCATCATTTTCTGAAATACCGCGGG 11319
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Db	11680	TTTTGAAGGAACACACAGTAGTCAAGAGCAGCTTCTCGAGTCAGACCACTACCAAGAAATCT	11739	
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QY	601	AsnProAsnProGluArgGlyThrLeuValAlaAsnThrLeuThrGlySerPheVal	620	
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DEFINITION Sequence 9 from Patent WO9858953.				
ACCESSION A81835				
VERSION A81835.1				
KEYWORDS GI:6731868				
SOURCE unidentified				
ORGANISM unclassified				
REFERENCE 1 (bases 1 to 2787)				
AUTHORS Madsen, A. and Birckelund, S.				
TITLE NOVEL SURFACE EXPOSED PROTEINS FROM CHLAMYDIA PNEUMONIAE				
JOURNAL Patent: WO 9858953-A 9 30-DEC-1998;				
MADSEN ANNA SOFIE (DK); BIRCKELUND SVEND (DK)				
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BASE COUNT 811 a 583 c 598 g 795 t				
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Score: 1971.00 Matches: 427				
Percent Similarity: 60.63% Conservative: 149				

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 QY 641 GlyIleTrpCysGluGlyIleSerAsnPhePheHisLysAspSerThrLysIleAsnLys 660
 Db 1921 GGCATCTGGTGAAGGATCTCGAATCTTCCATAAAGATAGCAGCAAGATAATAAA 1980
 QY 661 GlyPheArgHisIleSerAlaGlyTyrValValGlyAlaThrThrLeuAlaSerAsp 680
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 QY 741 AlaGlnIleSerTyrIleThrSerLysAsnThrMetLysThrTyrThrGlnAlaPro 760
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RESULT 4

AAC81914/c

ID AAC81914 standard; DNA; 273254 BP.

XX AC AAC81914;

XX AC AAC81914;

DT 27-FEB-2001 (first entry)

Chlamydia pneumoniae genome DNA.
 Genome; diagnosis; vaccine; ds.
 Chlamydia pneumoniae.

WO200027994-A2.

18-MAY-2000.

12-NOV-1999; 99WO-US26923.

12-NOV-1998; 98US-0108279.

08-APR-1999; 99US-0128606.

(RECC) UNIV CALIFORNIA.

Stephens R, Mitchell W, Kalman S, Davis R;

WPI; 2000-376516/32.

Isolated nucleic acid for use in diagnostic and analytical methods
 encodes genomic sequence of Chlamydia pneumoniae

Claim 2; Page 128-320; 320pp; English.

This invention describes a novel nucleic acid (N1) encoding a Chlamydia pneumoniae protein (P1), given in the specification. The isolated nucleic acid is useful for diagnostic and analytical methods, such as, hybridization-based assays or amplification-based assays. The protein may be used for diagnostic purposes, for their enzymatic or structural activity, or as a vaccine. The invention also describes (1) a probe comprising a hybridizing fragment of N1; (2) an isolated nucleic acid (N2) that hybridizes under stringent conditions to N1; (3) an expression cassette comprising N1 under the transcriptional regulation of a transcriptional initiation region functional in an expression host, and a transcriptional termination region; (4) a cell comprising an expression cassette of (3) as part of an extrachromosomal element or integrated into the genome of a host cell as a result of induction of the expression cassette into the host cell, and the cellular progeny of the host cell; (5) a method for producing a P1 comprising growing a cell of (4) where the protein is expressed and isolating the protein free of other proteins; (6) a purified polypeptide composition comprising at least 50 weight % of P1; and (7) a monoclonal antibody binding specifically to the peptide of (6).

Sequence 273254 BP; 76423 A; 51054 C; 61965 G; 83812 T; 0 other;

Alignment Scores:

Pred. No.: 0 Length: 273254
 Score: 4739.00 Matches: 925
 Percent Similarity: 99.68% Conservative: 0
 Best Local Similarity: 99.68% Mismatches: 3
 Query Match: 99.58% Indels: 0
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US-09-857-128-14 (1-928) x AAC81914 (1-273254)

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ND

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Qy 641 GlyIleTyrCysGluGlyIleSerAsnPhePheHisLysAspSerThrLysIleAsnLys 660
Db 103818 GGCATCTGCTGTGAAGGATCTCGAATCTTCCATAAAGATAGCAGCAAGATAATAA 103759
Qy 661 GlyPheArgHisIleSerAlaGlyTyrValValGlyAlaThrThrLeuAlaSerAsp 680
Db 103758 GGTTCGCCACATAAGTGCAGGTATGTTGTAGGAGCGACTTACCAACTAGCTTCTGAT 103699
Qy 681 AsnLeuIleThrAlaAlaPheCysGlnLeuPheGlyLysAspArgAspHisPheIleAsn 700
Db 103698 AATCTTATCACTGACGCTTCTGCCAATATTCGGGAAGATAGAGATCACTTTATAAT 103639
Qy 701 LysAsnArgAlaSerAlaTyrAlaAlaSerLeuHisLeuGlnHisLeuAlaThrLeuSer 720
Db 103638 AAAAATAGAGCTTCTGCTATGACGCTCTCTCCATCTCCAGCATCTAGCAGCTTGTCT 103579
Qy 721 SerProSerLeuLeuArgTyrLeuProGlySerGluSerGluGlnProValLeuPheAsp 740
Db 103578 TCTCCAGCTTGTACGCTACTCTCTCTGATCTGAAAGTACGAGCGCTGCTCTTGTAT 103519
Qy 741 AlaGlnIleSerTyrIleTyrSerLysAsnThrMetLysThrTyrThrGlnAlaPro 760
Db 103518 GCTCAGATCAGCTATATCTATAGTAAATACTATGAAACCTATTACACCAAGACCA 103459
Qy 761 LysGlyLeuSerSerTyrTyrAsnAspGlyCysAlaLeuGluLeuAlaSerSerLeuPro 780
Db 103458 AAGGAGAGAGCTGCTGGTATATGACGCTTGGCTCTGGAATCTGAGCTTGCAGCTCTTACCA 103399
Qy 781 HisThrAlaLeuSerHisGluGlyLeuPheHisAlaTyrPheProPheIleLysValGlu 800
Db 103398 CACACTGCTTAAAGCATGAGGCTCTCTCCACGCGTATTTTCTTCTTCAATCAAGTAGAA 103339

DB
10478
Aug 25 09:43:57 2003

QY 801 AlaSerTyrIleHisGlnAspSerPheLysGluArgAsnThrThrLeuValArgSerPhe 820
DB 103338 GCTTCGTACATACACCAAGATAGCTTCAAGAACGATATACATCTGGTACGATCTTC 103279
QY 821 AspSerGlyAspLeuIleAsnValSerValProIleGlyIleThrPheGluArgPheSer 840
DB 103278 CATAGCGGTGATTAAATTAAGCTCTCTGTGCTATGGAATACCTTCGAGAGATCTCG 103219
QY 841 ArgAsnGluArgAlaSerTyrGluAlaThrValIleTyrValAlaAspValTyrArgLys 860
DB 103218 AGAACGAGCGTGGCTCTTACGAAGCTACTGTCTATCTACGTTCGGATGTCTATCGTAAG 103159
QY 861 AsnProAspCysThrThrAlaLeuLeuIleAsnAsnThrSerTyrPheThrGlyThr 880
DB 103158 AATCCTGACTGCAGCAGAGCTCTCTATATCAACATACCTCGTGGAAACATACAGGACG 103099
QY 881 AsnLeuSerArgGlnAlaGlyIleGlyArgAlaGlyIlePheTyrAlaPheSerProAsn 900
DB 103098 AATCTCAACACAGCTGGTATCGGAAGACGAGGATCTTTTATGCTTCTCTCCAAAT 103039
QY 901 LeuGluValThrSerAsnLeuSerMetGluLeuArgGlySerSerArgSerTyrAsnAla 920
DB 103038 CTTGAGGTCAACAAGTAACTATCTATGGAATTCGTGGATCTTCAGCGAGCTACAATGCA 102979
QY 921 AspLeuGlyGlyLysPheGlnPhe 928
DB 102978 GATCTGGAGTAAGTTCCAGTTC 102955

RESULT 5

AA006822
ID AA006822: standard; DNA; 2787 BP.
XX
AC AA006822;
DT
DE Chlamydia pneumoniae surface exposed protein Omp10 DNA.
KW Omp10; outer membrane protein 10; surface exposed protein; antigen;
KW infection; diagnosis; vaccine; atherosclerosis; asthma; ss.
OS Chlamydia pneumoniae.
XX W09858953-A2.
XX
PD 30-DEC-1998.
XX
PF 19-JUN-1998; 98WO-DK00266.
XX
PR 23-JUN-1997; 97DK-0000744.
XX
PA (BIRK/) BIRKELUND S.
PA (CHRI/) CHRISTIANSEN G.
PI Birkelund S, Christiansen G, Knudsen K, Madsen A;
PI Mygind P;
DR WPI; 1999-105610/09.
DR P-PSDB; AAW88423.
XX

Species-specific test for identifying mammals infected with
Chlamydia pneumoniae - comprises detecting antibodies specific for
outer membrane proteins of C. pneumoniae or nucleic acids encoding
these proteins

Claim 6; Page 59; 115pp; English.

This DNA sequence codes for the novel 98.4 kDa surface exposed
protein Omp10 (see AAW88423) of the human respiratory pathogen
Chlamydia pneumoniae. By generating antibodies against C.
pneumoniae outer membrane complex, a polyclonal antibody (PAB 150)
was obtained which reacted with outer membrane proteins. The
antibody was used to identify the genes (see AAX06816-27) encoding

CC Omp4-Omp15 proteins (see AAW88417-28) in an expression library of
CC C. pneumoniae DNA. The genes are situated in 2 gene clusters:
CC Omp12,11,10,5,4,13 and 14 in one cluster and Omp6,7,8,9 and 15 in
CC the other, and encode polypeptides of about 89,6-100,3 kDa and
CC about 56,1 kDa. The invention provides a new species specific test
CC for identifying mammals (including humans) infected with Chlamydia
CC pneumoniae. The test comprises detecting antibodies specific for
CC Omp4-Omp15 or detecting nucleic acid fragments encoding these outer
CC membrane proteins, especially by PCR. The proteins are also used
CC in the diagnosis of C. pneumoniae infection in mammals. The
CC nucleic acids and proteins can also be used in the immunization of
CC mammals, the nucleic acids being particularly useful as DNA
CC vaccines for effecting in vivo expression of antigens. The
CC vaccines may also prevent atherosclerosis and bronchial asthma,
CC which are possibly associated with C. pneumoniae.
XX

SQ Sequence 2787 BP; 815 A; 689 C; 535 G; 748 T; 0 other;

Alignment Scores:

Pred. No.: 0 Length: 2787
Score: 4726.00 Matches: 922
Percent Similarity: 99.57% Conservative: 2
Best Local Similarity: 99.35% Mismatches: 4
Query Match: 99.31% Indels: 0
DB: 20 Gaps: 0

US-09-857-128-14 (1-928) x AAX06822 (1-2787)

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QY 21 AsnPheSerAlaPheAlaValValGluIleAsnLeuGlyProThrAsnSerPheSer 40
DB 61 AATTTCTCGCTTGGTGTCTGTTGTAATCAATCACTAGGACCTACCAATAGTCTCTCT 120
QY 41 GlyProGlyThrTyrThrProAlaGlnThrThrAsnAlaAspGlyThrIleTyrAsn 60
DB 121 GGACCGAGAACTACACTCTCTCCAGCCCAACAAACAAATGAGTGGAACTATCTATAAT 180
QY 61 LeuThrGlyAspValSerIleThrAsnAlaGlySerProThrAlaLeuThrAlaSerCys 80
DB 181 CTAACAGGGGATGCTCAATCAACCAATCGAGGATCTCCGACAGCTCTAACCGCTCCGTC 240
QY 81 PheLysGluThrThrGlyAsnLeuSerPheGlnGlyHisGlyTyrGlnPheLeuGln 100
DB 241 TTTAAAGAACTACTGGGAATCTTCTTCCAGGCCACGCGCTACCAATTTCTCTACAA 300
QY 101 AsnIleAspAlaGlyAlaAsnCysThrPheThrAsnThrAlaAlaAsnLysLeuSer 120
DB 301 AATATCGATCGGGAGGAACTGTACCTTTACCAATACAGCTGCAATAAAGCTTCTCTCC 360
QY 121 PheSerGlyPheSerTyrLeuSerLeuIleGlnThrThrAsnAlaThrThrGlyThrGly 140
DB 361 TTTTCAGGATTCCTCTATTGTTCACTAATAACCAACCAAGTGTACACAGGAAACAGGA 420
QY 141 AlaIleLysSerThrGlyAlaCysSerIleGlnSerAsnTyrSerCysTyrPheGlyGln 160
DB 421 GCCATCAAGTCCACAGAGCTTGTCTATTCACTCGAATACATAGTCTACTTTGGCCAA 480
QY 161 AsnPheSerAsnAspAsnGlyAlaLeuGlnGlySerSerIleSerLeuSerLeuAsn 180
DB 481 AACCTTTCTAATGACAATGGAGCGGCTCCAGGCGCTCTATCAGTCTATCGTAAAC 540
QY 181 ProAsnLeuThrPheAlaLysAsnLysAlaThrGlnLysGlyAlaLeuTyrSerThr 200
DB 541 CCCAACCTAACGTTTGCACAAACCAACGACGCAAAAGGGGGTGCCTCTATTTCACG 600
QY 201 GlyGlyIleThrIleAsnAsnThrLeuAsnSerAlaSerPheSerGluAsnThrAlaAla 220
DB 601 GGAGGGATTAACATTAACATACGTTAACTACATCATCTTTCTTGAAATACCGCGCG 660
QY 221 AsnAsnGlyGlyAlaIleTyrThrGluAlaSerSerPheIleSerSerAsnLysAlaIle 240

XX AAX91990;
 AC 13-SEP-1999 (first entry)
 DT Nucleotide sequence of the complete genome of Chlamydia pneumoniae.
 DE Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
 KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
 KW vaccine; neutralising epitope; ss.
 XX Chlamydia pneumoniae.
 OS
 XX WO927105-A2.
 PN
 PD 03-JUN-1999.
 XX
 XX 20-NOV-1998; 98WO-IB01890.
 XX
 XX 04-NOV-1998; 98US-0107078.
 PR 21-NOV-1997; 97FR-0014673.
 XX
 XX (GEST) GENSET.
 PA
 XX Griffiths R;
 PI
 XX WPI; 1999-357842/30.
 DR
 XX Genome sequence of Chlamydia pneumoniae
 PT
 XX Claim 1; Page 291-611; 1912pp; English.
 PS
 CC The present sequence represents the complete genome of Chlamydia
 CC pneumoniae, and encodes proteins AAX34584-X35879. C. pneumoniae causes
 CC respiratory disease such as pneumonia and bronchitis and is thought
 CC to be a contributing factor in heart disease, sarcoidosis, sinusitis,
 CC purulent otitis media, erythema nodosum or pharyngitis. The polypeptides
 CC encoded by the open reading frames of the C. pneumoniae genome (see
 CC AAX34584-X35879) can be used in immunogenic compositions as vaccines.
 CC Vectors containing C. pneumoniae nucleotide sequences can also be
 CC used as immunogenic compositions, especially where the vector directs
 CC the expression of a neutralising epitope of C. pneumoniae.
 XX
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 Alignment Scores:
 Pred. NO.: 0 Length: 1230025
 Score: 4666.50 Matches: 923
 Percent Similarity: 99.46% Conservative: 0
 Best Local Similarity: 99.46% Mismatches: 5
 Query Match: 98.06% Indels: 3
 DB: 20 Gaps: 0
 US-09-857-128-14 (1-928) x AAX91990 (1-1230025).
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 QY 21 AspPheSerAlaPheAlaAlaValValGluLeuAsnLeuGlyProThrAsnSerPheSer 40
 DB 510720 AATTCCTCGGTTGCTGCTGTTGTTGAAATCAATCTAGGACTTACCAATAGCTTCT 510779
 QY 41 GlyProGlyThrTyThrProProAlaGlnThrThrAsnAlaAspGlyThrIleTyAsn 60
 DB 510780 GGACCGAGAACCTACACTCTCCAGCCCAACAAACAAATCGCATGGAACTATCTAAT 510839
 QY 61 LeuThrGlyAspValSerIleThrAsnAlaGlySerProThrAlaLeuThrAlaSerCys 80
 DB 510840 CTAAACAGGGATGCTCAATCAACCAATGAGGATCTCCGACAGCTCTACCGCTTCTG 510899
 QY 81 PheLysGluThrThrGlyAsnLeuSerPheGlnGlyHisGlyTyThrGlnPheLeuGln 100

Db 510900 TTTAAGAAACTACTGCGGAATCTTTCTTTTCAAGSCCAGCGCTACCAATTTCTCTACAA 510959
 QY 101 AsnIleAspAlaGlyAlaAsnCysThrPheThrAsnThrAlaAlaAsnLysLeuSer 120
 Db 510960 AATTCGATCGGCGGAGCACTGTACCTTTACCAATACAGTGCAGAAAGCTTCTCTCC 511019
 QY 121 PheSerGlyPheSerTyLeuSerLeuLeuGlnThrThrAsnAlaThrThrGlyThrGly 140
 Db 511020 TTTTCAGGATTCCTCTATTTGTCACTAATAACCAACCAAGATGCTTACCACAGGAACAGGA 511079
 QY 141 AlaIleLysSerThrGlyAlaCysSerIleGlnSerAsnTySerCysTyPheGlyGln 160
 Db 511080 GCCATCAAGTCCACAGGAGCTGTCTATTTCAGTCGAACTATAGTTGCTACTTTGGCCAA 511139
 QY 161 AsnPheSerAsnAspAsnGlyGlyAlaLeuGlnGlySerSerIleSerLeuSerLeuAsn 180
 Db 511140 AACTTTCTAATGCAATGAGGCGCCCTCCAAAGCAGCTCTATCAGTCTATCGTAAAC 511199
 QY 181 ProAsnLeuThrPheAlaLysAsnLysAlaThrGlnLysGlyAlaLeuTyThrSerThr 200
 Db 511200 CCCAACCTTACGTTTGGCCAAACAAACCAAGCAAGGAGGCTGCTCTATTTCACAG 511259
 QY 201 GlyGlyIleThrIleAsnAsnThrLeuAsnSerAlaSerPheSerGluAsnThrAlaAla 220
 Db 511260 GGAGGATTACAATTAACAATACGTTAACTCAGCATCATTTTTCGAAAAATACCCGCGG 511319
 QY 221 AsnAsnGlyGlyAlaIleTyThrGluAlaSerSerPheIleSerSerAsnLysAlaIle 240
 Db 511320 AACAAATGCGGAGGCATTTACACGGAAGCTAGCAGTTTATTATAGCAGCAACAAAGCAATT 511379
 QY 241 SerPheIleAsnAsnSerValThrAlaThrSerAlaThrGlyGlyAlaIleTyCysSer 260
 Db 511380 AGCTTTATAACAATAGTGTGACCGCACTTCAGTACAGGGGGAGCCATTTACTGTAGT 511439
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 Db 511440 AGTACATCAGCCCAACACAGCTTAACTCTATCAGCAACAGGGAGCTGAATTTATA 511499
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 Db 511500 GGAATACAGCAATTTACTAGTGGGCGGATTTATATCTGACAACTAGTCTTCTTCTCT 511559
 QY 301 GlyGlyProThrLeuPheLysAsnAsnSerGlyTyThrAspThrAlaAlaProLeuGlyGly 320
 Db 511560 GGAGGACTAGCTTTTAAAAACAACTCTGCTATAGATCTGCTGCTTCCCTTAGGAGGA 511619
 QY 321 AlaIleAlaIleAlaAspSerGlySerLeuSerLeuSerAlaLeuGlyGlyAspIleThr 340
 Db 511620 GCAATTCGGATTGCTGACTCTGGATCTTTGAGTCTTTTCGGCTCTTGGTGGAGACATCACT 511679
 QY 341 PheGluGlyAsnThrValValLysGlyAlaSerSerSerGlnThrThrThrArgAsnSer 360
 Db 511680 TTTGAAGGAACACAGTAGTCAAGGAGCTTCTTCGAGTCTGAGACCTACCAAGAAATCT 511739
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 QY 401 LeuAsnGlyProAspLeuAlaGlyAsnProAlaTyThrGlnGlyThrIleValPheSerGly 420
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 QY 421 GluLysLeuSerGluAlaGluAlaAlaGluAlaAspAsnLeuLysSerThrIleGlnGln 440
 Db 511920 GAGAGCTCTCGGAGCAGGAGCTGCAGAGCTGATTAATCTCAATCTCAATTTACGAA 511979
 QY 441 ProLeuThrLeuAlaGlyGlyGlnLeuSerLeuLysSerGlyValThrLeuValAlaLys 460
 Db 511980 CCTCTAACTCTTCGGGAGGCAACTCTCTCTTAATCATCAGAGTCACTCTAGTTGCCAAG 512039

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GenCore version 5.1.1.6
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OM protein - protein search, using sw model

Run on: August 22, 2003, 15:44:46 ; Search time 375 Seconds

(without alignments)
2153.846 Million cell updates/sec

Title: US-09-857-128-14

Perfect score: 928

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Scoring table: OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 5580241 seqs, 870357830 residues

Word size : 0

Total number of hits satisfying chosen parameters: 5580241

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 50 summaries

Database : Pending_Patents_AA_Main:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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11	625	67.3	937	18	US-09-438-185A-449
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ALIGNMENTS

RESULT 1
US-09-857-128-14
; Sequence 14, Application US/09857128
; GENERAL INFORMATION:
; APPLICANT: Aventis Pasteur Limited
; APPLICANT: Mordin et al.
; TITLE OF INVENTION: Chlamydia antigens and corresponding DNA fragments and uses
; FILE REFERENCE: 77813-2
; CURRENT APPLICATION NUMBER: US/09/857,128
; CURRENT FILING DATE: 2001-10-29
; PRIOR APPLICATION NUMBER: US 60/110,427
; PRIOR FILING DATE: 1998-12-01
; PRIOR APPLICATION NUMBER: US 60/110,438
; PRIOR FILING DATE: 1998-12-01
; PRIOR APPLICATION NUMBER: US 60/110,339
; PRIOR FILING DATE: 1998-12-01
; PRIOR APPLICATION NUMBER: US 60/110,428
; PRIOR FILING DATE: 1998-12-01
; PRIOR APPLICATION NUMBER: US 60/110,340
; PRIOR FILING DATE: 1998-12-01

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; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 14
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-09-857-128-14

Query Match      100.0%; Score 928; DB 23; Length 928;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 928; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 241 SPINNSVTATSGAIIYCSSTSAKPVLTLSDNGELNFIGNTAITSGGAIYTDNLVLS 300
Db 241 SPINNSVTATSGAIIYCSSTSAKPVLTLSDNGELNFIGNTAITSGGAIYTDNLVLS 300
QY 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGLSLSALGGDITFEGNTVVKGASSSOTTTNRS 360
Db 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGLSLSALGGDITFEGNTVVKGASSSOTTTNRS 360
QY 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNGLPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNGLPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAEAAEADNLKSTIQOPLTLAGGQSLKSGVTLVAKFSQSPGSLTLLMDAGTTLET 480
Db 421 EKLSEAEAAEADNLKSTIQOPLTLAGGQSLKSGVTLVAKFSQSPGSLTLLMDAGTTLET 480
QY 481 ADGITINNVLNVDLSKETKGTATQASQTVTLTSGSLSLVDPSPGNVYEDVSNPNQVF 540
Db 481 ADGITINNVLNVDLSKETKGTATQASQTVTLTSGSLSLVDPSPGNVYEDVSNPNQVF 540
QY 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDATKSKAATLTWTKTGY 600
Db 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDATKSKAATLTWTKTGY 600
QY 601 NPNPERRGLTAVANTLWGSFVDRSIOQLVATKVSQOETRGICWEGISNFFHKDSTKINK 660
Db 601 NPNPERRGLTAVANTLWGSFVDRSIOQLVATKVSQOETRGICWEGISNFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLQHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLQHLATLS 720
QY 721 SPSSLRLYPGSESEOPVLFDQAQISYIYSKNTMKYIYTOAPKGSSWTDGCALEASSLP 780
Db 721 SPSSLRLYPGSESEOPVLFDQAQISYIYSKNTMKYIYTOAPKGSSWTDGCALEASSLP 780
QY 781 HTALSHEGLFAYFPFKIVEASYIHQDSFKERNITLVRSDGDLINVSPIGTFERFS 840
Db 781 HTALSHEGLFAYFPFKIVEASYIHQDSFKERNITLVRSDGDLINVSPIGTFERFS 840
QY 841 RNERASYEATVIYVADVYRKPNPDCTTALLINNTSWKTTGNLSRQAGIGRAGIFYAFSPN 900
Db 841 RNERASYEATVIYVADVYRKPNPDCTTALLINNTSWKTTGNLSRQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEITRSGSSRYNADLGGKQF 928
```

```
Db 901 LEVTSNLSMEITRSGSSRYNADLGGKQF 928
RESULT 2
US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312.273
; PRIOR FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33
```

```
Query Match      67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGNFTNSFGSGPTTTPPAQTTNADGTIYN 60
Db 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGNFTNSFGSGPTTTPPAQTTNADGTIYN 60
QY 61 LTGDVSIITNAGSPALTATSCFKETTNLSTFGQHGQYQFLLQNDAGANCTFTNTAANKLLS 120
Db 61 LTGDVSIITNAGSPALTATSCFKETTNLSTFGQHGQYQFLLQNDAGANCTFTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSCYFGQNFSDNGGALOGSSISLSLN 180
Db 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSCYFGQNFSDNGGALOGSSISLSLN 180
QY 181 PNLTFAKNKATQKGGALYSTGTTNNLNSASFSENTAANGGAIYTEASSFTSSNKAI 240
Db 181 PNLTFAKNKATQKGGALYSTGTTNNLNSASFSENTAANGGAIYTEASSFTSSNKAI 240
QY 241 SPINNSVTATSGAIIYCSSTSAKPVLTLSDNGELNFIGNTAITSGGAIYTDNLVLS 300
Db 241 SPINNSVTATSGAIIYCSSTSAKPVLTLSDNGELNFIGNTAITSGGAIYTDNLVLS 300
QY 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGLSLSALGGDITFEGNTVVKGASSSOTTTNRS 360
Db 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGLSLSALGGDITFEGNTVVKGASSSOTTTNRS 360
QY 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNGLPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNGLPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAEAAEADNLKSTIQOPLTLAGGQSLKSGVTLVAKFSQSPGSLTLLMDAGTTLET 480
Db 421 EKLSEAEAAEADNLKSTIQOPLTLAGGQSLKSGVTLVAKFSQSPGSLTLLMDAGTTLET 480
```

QY 481 ADGITTNNLVNVDLSKETKATQASQVTLTSGSLVDPGSGNYEDYVWNNPQVF 540
DB 481 ADGITTNNLVNVDLSKETKATQASQVTLTSGSLVDPGSGNYEDYVWNNPQVF 540
QY 541 SCLTLDADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
DB 541 SCLTLDADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
QY 601 NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSQETRGIWCEGISNFFHKDSTKINK 660
DB 601 NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSQETRGIWCEGISNFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHQLATLS 720
DB 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHQLATLS 720
QY 721 SPSSLRYLPGESEQVLFDAQISYIYSKNTWKTYTQAPKGESSYNDGCALELASSLP 780
DB 721 SPSSLRYLPGESEQVLFDAQISYIYSKNTWKTYTQAPKGESSYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFPPIKVEASYIHODSFKERNTTLVRSFDSGDLINVSVPITFERFS 840
DB 781 HTALSHEGLFHAYFPPIKVEASYIHODSFKERNTTLVRSFDSGDLINVSVPITFERFS 840
QY 841 RNERASYEATVIYVADYVRKNDPCTTALLINNTSKTTCTNLSRQAGIGRAGIFYAFSPN 900
DB 841 RNERASYEATVIYVADYVRKNDPCTTALLINNTSKTTCTNLSRQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGGKQF 928
DB 901 LEVTSNLSMEIRGSSRSYNADLGGKQF 928

RESULT 3

US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312,273
; PRIOR FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae

US-10-312-273-33

Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MKSSLHFLISSSLALPLSLNFSFAA VVEINLGNFTNSFGSGYVTPPAQTTNADGTYN 60
DB 1 MKSSLHFLISSSLALPLSLNFSFAA VVEINLGNFTNSFGSGYVTPPAQTTNADGTYN 60

QY 61 LTGDSITNAGSPTALTASCFFKETTGNLSFQGHGYOFLQNTDAGANCTFTNTAANKLLS 120
DB 61 LTGDSITNAGSPTALTASCFFKETTGNLSFQGHGYOFLQNTDAGANCTFTNTAANKLLS 120
QY 121 FSGFSYLSLIQTNTNATTGTGAIKSTGACSIQSNYSYFQGNFSDNGGALQSGSSISLSLN 180
DB 121 FSGFSYLSLIQTNTNATTGTGAIKSTGACSIQSNYSYFQGNFSDNGGALQSGSSISLSLN 180
QY 181 PNLTAKNKKATOKGALYSTGGITINNTLNSAFSSENTAANGGAIYTEASSPISNKAI 240
DB 181 PNLTAKNKKATOKGALYSTGGITINNTLNSAFSSENTAANGGAIYTEASSPISNKAI 240
QY 241 SPINNSVTATSGAIGAYCSSTSAKPVLITLSDNGELNFTIGNTAITSGGAIYTDNLVLS 300
DB 241 SPINNSVTATSGAIGAYCSSTSAKPVLITLSDNGELNFTIGNTAITSGGAIYTDNLVLS 300
QY 301 GPTLTKNNSGYDTAAPLGGAIAIADSGSLSALGGDITFEQNTVVKGASSQTTRNS 360
DB 301 GPTLTKNNSGYDTAAPLGGAIAIADSGSLSALGGDITFEQNTVVKGASSQTTRNS 360
QY 361 INIGNTNKIVOLRASQGNITFYDPITTSITAAALSDALNLANGPDLAGNPAYOGTIVFSG 420
DB 361 INIGNTNKIVOLRASQGNITFYDPITTSITAAALSDALNLANGPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAAEAADNLKSTIQOPLTAGGQLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 480
DB 421 EKLSEAAEAADNLKSTIQOPLTAGGQLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 480
QY 481 ADGITTNNLVNVDLSKETKATQASQVTLTSGSLVDPGSGNYEDYVWNNPQVF 540
DB 481 ADGITTNNLVNVDLSKETKATQASQVTLTSGSLVDPGSGNYEDYVWNNPQVF 540
QY 541 SCLTLDADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
DB 541 SCLTLDADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
QY 601 NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSQETRGIWCEGISNFFHKDSTKINK 660
DB 601 NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSQETRGIWCEGISNFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHQLATLS 720
DB 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHQLATLS 720
QY 721 SPSSLRYLPGESEQVLFDAQISYIYSKNTWKTYTQAPKGESSYNDGCALELASSLP 780
DB 721 SPSSLRYLPGESEQVLFDAQISYIYSKNTWKTYTQAPKGESSYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFPPIKVEASYIHODSFKERNTTLVRSFDSGDLINVSVPITFERFS 840
DB 781 HTALSHEGLFHAYFPPIKVEASYIHODSFKERNTTLVRSFDSGDLINVSVPITFERFS 840
QY 841 RNERASYEATVIYVADYVRKNDPCTTALLINNTSKTTCTNLSRQAGIGRAGIFYAFSPN 900
DB 841 RNERASYEATVIYVADYVRKNDPCTTALLINNTSKTTCTNLSRQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGGKQF 928
DB 901 LEVTSNLSMEIRGSSRSYNADLGGKQF 928

RESULT 4

US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03

```
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33

Query Match      67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 MKSSLHWFLISSSLALPLSLNFSFAFAA VVEINLGP TNSFGPGTYTPPAOTTNADGTIYN 60
Db 1 MKSSLHWFLISSSLALPLSLNFSFAFAA VVEINLGP TNSFGPGTYTPPAOTTNADGTIYN 60
Qy 61 LTGDSVITNAGSPTALTASCFC KETTGNLSFGQHG YQFLQNIDAGANC TTTNTAANKLLS 120
Db 61 LTGDSVITNAGSPTALTASCFC KETTGNLSFGQHG YQFLQNIDAGANC TTTNTAANKLLS 120
Qy 121 FSGFSYLSLIOTTNATTGTCGAIKSTGACSIQSNYSYFCGQNFSDNDNGGALOGSSISLSLN 180
Db 121 FSGFSYLSLIOTTNATTGTCGAIKSTGACSIQSNYSYFCGQNFSDNDNGGALOGSSISLSLN 180
Qy 181 PNLTFKAKNKATOKGALYSTGTGTTINNTLNSASFSEN TAANNNGGAIY TEASSFISNKAI 240
Db 181 PNLTFKAKNKATOKGALYSTGTGTTINNTLNSASFSEN TAANNNGGAIY TEASSFISNKAI 240
Qy 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLS DNGELNFI GNTAITSGGAIYTDNLVLSS 300
Db 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLS DNGELNFI GNTAITSGGAIYTDNLVLSS 300
Qy 301 GGPTLFFKNNSCYDTAA PLGGAIAIADSGSL SLSALGDDITFEGNTVYVKGASSSQTTRNS 360
Db 301 GGPTLFFKNNSAIDTAA PLGGAIAIADSGSL SLSALGDDITFEGNTVYVKGASSSQTTRNS 360
Qy 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSIT AALS DALNLPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSIT AALS DALNLPDLAGNPAYOGTIVFSG 420
Qy 421 EKJSEAEAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKFSQSPGSTLLMDAGTTLET 480
Db 421 EKJSEAEAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKFSQSPGSTLLMDAGTTLET 480
Qy 481 ADGITTINNLVNDLSKETKKGLTKATQASQT VTLSSLSLVDPSGNVYEDVSWNPQVF 540
Db 481 ADGITTINNLVNDLSKETKKATLKATQASQT VTLSSLSLVDPSGNVYEDVSWNPQVF 540
Qy 541 SCLTLTADDPANHIHTDLAADPLEKNPIH WGYOGN WALSWOEDTATKSKAATLTWTKTGY 600
Db 541 SCLTLTADDPANHIHTDLAADPLEKNPIH WGYOGN WALSWOEDTATKSKAATLTWTKTGY 600
Qy 601 NPNPERRGTLVANTLMSFVDVRSIQOLVATKVRQSOETRGIWCEGISNFFHDKSTKINK 660
Db 601 NPNPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGISNFFHDKSTKINK 660
Qy 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLOHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLOHLATLS 720

721 SPSSLRYLPGSESEQPVLFDAQISYISKNTMKTYITQAPKGESSWYNDGCAL ELASSLP 780
721 SPSSLRYLPGSESEQPVLFDAQISYISKNTMKTYITQAPKGESSWYNDGCAL ELASSLP 780
781 HTALSHGELPHAYFPFIKVEASYIHQDSFKERN TTVLRSFSDGDLINVSVPIGITFFERFS 840
781 HTALSHGELPHAYFPFIKVEASYIHQDSFKERN TTVLRSFSDGDLINVSVPIGITFFERFS 840
841 RNERASYEATVIYVADVYRKNPDC TTTALLINNTSWKTTGNLSRQAGIGRAGIYAFSPN 900
841 RNERASYEATVIYVADVYRKNPDC TTTALLINNTSWKTTGNLSRQAGIGRAGIYAFSPN 900
901 LEVTSNLSMEIRSGRSYNADLGKQF 928
901 LEVTSNLSMEIRSGRSYNADLGKQF 928

RESULT 5
US-10-312-273-33
; Sequence 33; Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33

Query Match      67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

Qy 1 MKSSLHWFLISSSLALPLSLNFSFAFAA VVEINLGP TNSFGPGTYTPPAOTTNADGTIYN 60
Db 1 MKSSLHWFLISSSLALPLSLNFSFAFAA VVEINLGP TNSFGPGTYTPPAOTTNADGTIYN 60
Qy 61 LTGDSVITNAGSPTALTASCFC KETTGNLSFGQHG YQFLQNIDAGANC TTTNTAANKLLS 120
Db 61 LTGDSVITNAGSPTALTASCFC KETTGNLSFGQHG YQFLQNIDAGANC TTTNTAANKLLS 120
Qy 121 FSGFSYLSLIOTTNATTGTCGAIKSTGACSIQSNYSYFCGQNFSDNDNGGALOGSSISLSLN 180
Db 121 FSGFSYLSLIOTTNATTGTCGAIKSTGACSIQSNYSYFCGQNFSDNDNGGALOGSSISLSLN 180
Qy 181 PNLTFKAKNKATOKGALYSTGTGTTINNTLNSASFSEN TAANNNGGAIY TEASSFISNKAI 240
Db 181 PNLTFKAKNKATOKGALYSTGTGTTINNTLNSASFSEN TAANNNGGAIY TEASSFISNKAI 240
Qy 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLS DNGELNFI GNTAITSGGAIYTDNLVLSS 300
Db 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLS DNGELNFI GNTAITSGGAIYTDNLVLSS 300
Qy 301 GGPTLFFKNNSCYDTAA PLGGAIAIADSGSL SLSALGDDITFEGNTVYVKGASSSQTTRNS 360
Db 301 GGPTLFFKNNSAIDTAA PLGGAIAIADSGSL SLSALGDDITFEGNTVYVKGASSSQTTRNS 360
Qy 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSIT AALS DALNLPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSIT AALS DALNLPDLAGNPAYOGTIVFSG 420
Qy 421 EKJSEAEAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKFSQSPGSTLLMDAGTTLET 480
Db 421 EKJSEAEAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKFSQSPGSTLLMDAGTTLET 480
Qy 481 ADGITTINNLVNDLSKETKKGLTKATQASQT VTLSSLSLVDPSGNVYEDVSWNPQVF 540
Db 481 ADGITTINNLVNDLSKETKKATLKATQASQT VTLSSLSLVDPSGNVYEDVSWNPQVF 540
Qy 541 SCLTLTADDPANHIHTDLAADPLEKNPIH WGYOGN WALSWOEDTATKSKAATLTWTKTGY 600
Db 541 SCLTLTADDPANHIHTDLAADPLEKNPIH WGYOGN WALSWOEDTATKSKAATLTWTKTGY 600
Qy 601 NPNPERRGTLVANTLMSFVDVRSIQOLVATKVRQSOETRGIWCEGISNFFHDKSTKINK 660
Db 601 NPNPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGISNFFHDKSTKINK 660
Qy 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLOHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLOHLATLS 720
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Db 241 SFINNSVTATSGTGAIYCSSTAPKPVLTLSGNGELNFIGNTAITSGGAIYTDNLVLS 300
QY 301 GGPTEFNNSGYDTAAPLGAIAIADSGSLSLGALGGDITFEQNTVVKGASSQTTRNS 360
Db 301 GGPTEFNNSAIDTAAPLGAIAIADSGSLSLGALGGDITFEQNTVVKGASSQTTRNS 360
QY 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNLPDLGAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNLPDLGAGNPAYOGTIVFSG 420
QY 421 EKLSEAEAEADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSFQSPGSTLLMDAGTTLET 480
Db 421 EKLSEAEAEADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSFQSPGSTLLMDAGTTLET 480
QY 481 ADGITTNNLVNVDLSKETKGTAKATQASQVTLTSGSLSLVDPGSGNYVEDYVSWNNPQVF 540
Db 481 ADGITTNNLVNVDLSKETKGTAKATQASQVTLTSGSLSLVDPGSGNYVEDYVSWNNPQVF 540
QY 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTGTGY 600
Db 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTGTGY 600
QY 601 NNPERGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGINSFFHKDSTKINK 660
Db 601 NNPERGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGINSFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHLQHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHLQHLATLS 720
QY 721 SPSSLRLPGSESEQPVLFDAQISYISKNTMKTYTQAPKCESSWYNDGCALELASSLP 780
Db 721 SPSSLRLPGSESEQPVLFDAQISYISKNTMKTYTQAPKCESSWYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFFPIKVEASYIHQDSFKERNTTLVRSFDSGDLINVSPIGITFERFS 840
Db 781 HTALSHEGLFHAYFFPIKVEASYIHQDSFKERNTTLVRSFDSGDLINVSPIGITFERFS 840
QY 841 RNERASYEATVIYVADVTRKKNPDCTALLINNTSWKTTGTNLSRQAGIGRAGIFYAFSPN 900
Db 841 RNERASYEATVIYVADVTRKKNPDCTALLINNTSWKTTGTNLSRQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKGFQF 928
Db 901 LEVTSNLSMEIRGSSRSYNADLGKGFQF 928

```

RESULT 6

```

; US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664

```

```

; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
; US-10-312-273-33

```

```

Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```

```

QY 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGPTNSFGSGPGTYTPPPAQTNNADGTIYN 60
Db 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGPTNSFGSGPGTYTPPPAQTNNADGTIYN 60
QY 61 LTGDSVITNAGSPALTATSCFKETGTGNSLFOGHGYOFLQNLIDAGANCFTTNTAANKLLS 120
Db 61 LTGDSVITNAGSPALTATSCFKETGTGNSLFOGHGYOFLQNLIDAGANCFTTNTAANKLLS 120
QY 121 FSGFSYLSLIQTNATTTGTAIKSTGACISIQSNYSCYFQGNFSDNDGALQSSISLSLN 180
Db 121 FSGFSYLSLIQTNATTTGTAIKSTGACISIQSNYSCYFQGNFSDNDGALQSSISLSLN 180
QY 181 PNLTEAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNKAI 240
Db 181 PNLTEAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNKAI 240
QY 241 SPINNSVTATSGTGAIYCSSTAPKPVLTLSGNGELNFIGNTAITSGGAIYTDNLVLS 300
Db 241 SPINNSVTATSGTGAIYCSSTAPKPVLTLSGNGELNFIGNTAITSGGAIYTDNLVLS 300
QY 301 GGPTEFNNSGYDTAAPLGAIAIADSGSLSLGALGGDITFEQNTVVKGASSQTTRNS 360
Db 301 GGPTEFNNSAIDTAAPLGAIAIADSGSLSLGALGGDITFEQNTVVKGASSQTTRNS 360
QY 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNLPDLGAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQGNITFYDPIITTSITAAALSDALNLPDLGAGNPAYOGTIVFSG 420
QY 421 EKLSEAEAEADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSFQSPGSTLLMDAGTTLET 480
Db 421 EKLSEAEAEADNLKSTIOOPLTLAGGQLSLKSGVTLVAKSFQSPGSTLLMDAGTTLET 480
QY 481 ADGITTNNLVNVDLSKETKGTAKATQASQVTLTSGSLSLVDPGSGNYVEDYVSWNNPQVF 540
Db 481 ADGITTNNLVNVDLSKETKGTAKATQASQVTLTSGSLSLVDPGSGNYVEDYVSWNNPQVF 540
QY 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTGTGY 600
Db 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTGTGY 600
QY 601 NNPERGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGINSFFHKDSTKINK 660
Db 601 NNPERGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGINSFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHLQHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFGKDRDHFINKNRASAYAAASLHLQHLATLS 720
QY 721 SPSSLRLPGSESEQPVLFDAQISYISKNTMKTYTQAPKCESSWYNDGCALELASSLP 780
Db 721 SPSSLRLPGSESEQPVLFDAQISYISKNTMKTYTQAPKCESSWYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFFPIKVEASYIHQDSFKERNTTLVRSFDSGDLINVSPIGITFERFS 840
Db 781 HTALSHEGLFHAYFFPIKVEASYIHQDSFKERNTTLVRSFDSGDLINVSPIGITFERFS 840
QY 841 RNERASYEATVIYVADVTRKKNPDCTALLINNTSWKTTGTNLSRQAGIGRAGIFYAFSPN 900
Db 841 RNERASYEATVIYVADVTRKKNPDCTALLINNTSWKTTGTNLSRQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKGFQF 928

```

```
Db 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
RESULT 7
US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312.273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33
Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 MKSSLHWFLSSSLALPLSLNFSFAA VVEINLGTNFSFGPGYTPPAQTNNADGTIYN 60
Db 1 MKSSLHWFLSSSLALPLSLNFSFAA VVEINLGTNFSFGPGYTPPAQTNNADGTIYN 60
QY 61 LTGDSVTNAGSPALTASCFTKTNLSPFGHGYQFLQNDAGANCTTNTAANKLLS 120
Db 61 LTGDSVTNAGSPALTASCFTKTNLSPFGHGYQFLQNDAGANCTTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSYFGQNFSDNGGALQGSSISLSLN 180
Db 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSYFGQNFSDNGGALQGSSISLSLN 180
QY 181 PNLTFKAKATQKGGALYSTGGIINNTLNSASESENTAANGGAIYTEASSFTSSNKAI 240
Db 181 PNLTFKAKATQKGGALYSTGGIINNTLNSASESENTAANGGAIYTEASSFTSSNKAI 240
QY 241 SFINNVTATSATGAIYCSSTAPKPVLTLSNDGELNFGTNTAITSGGAIYTDNLVLS 300
Db 241 SFINNVTATSATGAIYCSSTAPKPVLTLSNDGELNFGTNTAITSGGAIYTDNLVLS 300
QY 301 GGPTLFKNNSCYDTPAALPGGAIAIADSGSLSLALGDDITFEGNTVYKASSSOTTRNS 360
Db 301 GGPTLFKNNSAIDTAPLPGGAIAIADSGSLSLALGDDITFEGNTVYKASSSOTTRNS 360
QY 361 INIGNTNAKIVOLRASOGNTIYFYDPTTTSITAAALSALNGLNPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASOGNTIYFYDPTTTSITAAALSALNGLNPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSVTLVAKFSQSPGSLTLLMDAGTTLET 480
Db 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSVTLVAKFSQSPGSLTLLMDAGTTLET 480
QY 481 ADGITTINNLVNDLSLAKETKATLKAQASQTVTLSGSLSLVDFSGNVYEDVSNNPQVF 540
Db 481 ADGITTINNLVNDLSLAKETKATLKAQASQTVTLSGSLSLVDFSGNVYEDVSNNPQVF 540
QY 541 SCLTLTADDPANITHITDLAADPLEKPNPIHWGYOCGNWALSQWEDTATSKAATLTWTGTGY 600
Db 541 SCLTLTADDPANITHITDLAADPLEKPNPIHWGYOCGNWALSQWEDTATSKAATLTWTGTGY 600
QY 601 NPAPERGLTAVANLWGSFVDVRSIQOLVATKVRQSOETRGICWCEGINSNPFHKDSTKINK 660
Db 601 NPAPERGLTAVANLWGSFVDVRSIQOLVATKVRQSOETRGICWCEGINSNPFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTILASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLQHLATLS 720
Db 661 GFRHISAGYVVGATTTILASDNLITAAFCQLFGKDRDHFINKNRASAYAAASHLQHLATLS 720
QY 721 SPILLRYLPGSESEQPVLFDAQISYISKNTMTYTYTOAPKGGSSWYNDGCALELASSLP 780
Db 721 SPILLRYLPGSESEQPVLFDAQISYISKNTMTYTYTOAPKGGSSWYNDGCALELASSLP 780
QY 781 HTALSHGELPHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSPIGIFTFERES 840
Db 781 HTALSHGELPHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSPIGIFTFERES 840
QY 841 RNERASYEATVIYVADVYRKPNPDCVTALLINNTSWKTTGTNLRSQAGIGRAGIFYAFSPN 900
Db 841 RNERASYEATVIYVADVYRKPNPDCVTALLINNTSWKTTGTNLRSQAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
Db 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
RESULT 8
US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312.273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33
Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 MKSSLHWFLSSSLALPLSLNFSFAA VVEINLGTNFSFGPGYTPPAQTNNADGTIYN 60
Db 1 MKSSLHWFLSSSLALPLSLNFSFAA VVEINLGTNFSFGPGYTPPAQTNNADGTIYN 60
QY 61 LTGDSVTNAGSPALTASCFTKTNLSPFGHGYQFLQNDAGANCTTNTAANKLLS 120
Db 61 LTGDSVTNAGSPALTASCFTKTNLSPFGHGYQFLQNDAGANCTTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSYFGQNFSDNGGALQGSSISLSLN 180
Db 121 FSGFSYLSLIQTTNATTGTAIKSTGACSIQSNYSYFGQNFSDNGGALQGSSISLSLN 180
QY 181 PNLTFKAKATQKGGALYSTGGIINNTLNSASESENTAANGGAIYTEASSFTSSNKAI 240
Db 181 PNLTFKAKATQKGGALYSTGGIINNTLNSASESENTAANGGAIYTEASSFTSSNKAI 240
QY 241 SFINNVTATSATGAIYCSSTAPKPVLTLSNDGELNFGTNTAITSGGAIYTDNLVLS 300
Db 241 SFINNVTATSATGAIYCSSTAPKPVLTLSNDGELNFGTNTAITSGGAIYTDNLVLS 300
QY 301 GGPTLFKNNSCYDTPAALPGGAIAIADSGSLSLALGDDITFEGNTVYKASSSOTTRNS 360
Db 301 GGPTLFKNNSAIDTAPLPGGAIAIADSGSLSLALGDDITFEGNTVYKASSSOTTRNS 360
QY 361 INIGNTNAKIVOLRASOGNTIYFYDPTTTSITAAALSALNGLNPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASOGNTIYFYDPTTTSITAAALSALNGLNPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSVTLVAKFSQSPGSLTLLMDAGTTLET 480
Db 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSVTLVAKFSQSPGSLTLLMDAGTTLET 480
QY 481 ADGITTINNLVNDLSLAKETKATLKAQASQTVTLSGSLSLVDFSGNVYEDVSNNPQVF 540
Db 481 ADGITTINNLVNDLSLAKETKATLKAQASQTVTLSGSLSLVDFSGNVYEDVSNNPQVF 540
```

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QY 61 LTGDSITNAGSPALTATSCFKETTNLSPFGHGYOFLQNDAGANCTTNTAANKLLS 120
Db 61 LTGDSITNAGSPALTATSCFKETTNLSPFGHGYOFLQNDAGANCTTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATGTGAISTGACSIQSNYSCYFGQNFNDNGALQSGSSISLSLN 180
Db 121 FSGFSYLSLIQTTNATGTGAISTGACSIQSNYSCYFGQNFNDNGALQSGSSISLSLN 180
QY 181 PNLTFAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNNKAI 240
Db 181 PNLTFAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNNKAI 240
QY 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLDNGELNFTGNATITSGGAIYTDNLVLS 300
Db 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLDNGELNFTGNATITSGGAIYTDNLVLS 300
QY 301 GPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITFEQNTVVKGASSQTTRNS 360
Db 301 GPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITFEQNTVVKGASSQTTRNS 360
QY 361 INIGNTNAKIVOLRASQNTIYFYDPITTSITAALSDALNNGPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQNTIYFYDPITTSITAALSDALNNGPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSGSTLLMDAGTTLET 480
Db 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSGSTLLMDAGTTLET 480
QY 481 ADGITTINNLVNDLSKETKKTATKATQASQVTLSGSLSLVDPGSGNYEDVSWNNPQVF 540
Db 481 ADGITTINNLVNDLSKETKKTATKATQASQVTLSGSLSLVDPGSGNYEDVSWNNPQVF 540
QY 541 SCFLTADDDPANIHTLAADPLEKNPIHWGQGNWALSQEDTATKSKAATLTWTKTGY 600
Db 541 SCFLTADDDPANIHTLAADPLEKNPIHWGQGNWALSQEDTATKSKAATLTWTKTGY 600
QY 601 NPNERGRLVANTLWGSFVDRSITQOLVATKVRQSOETRGITWCEGINSFHKDSTKINK 660
Db 601 NPNERGRLVANTLWGSFVDRSITQOLVATKVRQSOETRGITWCEGINSFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYASLHLOHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYASLHLOHLATLS 720
QY 721 SPILLRLPGSESEOPVLFDAGISYISKNTMKTYTQAPKGESWYNDGCALELASSLP 780
Db 721 SPILLRLPGSESEOPVLFDAGISYISKNTMKTYTQAPKGESWYNDGCALELASSLP 780
QY 781 HTALSHGELFHAYFFPIKVEASYIHQDSFKERNITLVRSDGDLINVSVPICITFERFS 840
Db 781 HTALSHGELFHAYFFPIKVEASYIHQDSFKERNITLVRSDGDLINVSVPICITFERFS 840
QY 841 RNERASYEATVIYADVVRKKNPDCDTALLINNTSWKTTGTNLSROAGIGRAGIFYAFSPN 900
Db 841 RNERASYEATVIYADVVRKKNPDCDTALLINNTSWKTTGTNLSROAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSWEIRGSSRSYNADLGGKQF 928
Db 901 LEVTSNLSWEIRGSSRSYNADLGGKQF 928

```

RESULT 9

```

US-10-312-273-33
; Sequence 33, Application. US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2

```

```

; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
; US-10-312-273-33

```

```

Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. NO. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 MKSSLHWFLISSLSALPLSLNFSFAFAAIVVEINLGPNTNSFSGPGCTYTPPAQTTNADGTIYN 60
Db 1 MKSSLHWFLISSLSALPLSLNFSFAFAAIVVEINLGPNTNSFSGPGCTYTPPAQTTNADGTIYN 60
QY 61 LTGDSITNAGSPALTATSCFKETTNLSPFGHGYOFLQNDAGANCTTNTAANKLLS 120
Db 61 LTGDSITNAGSPALTATSCFKETTNLSPFGHGYOFLQNDAGANCTTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATGTGAISTGACSIQSNYSCYFGQNFNDNGALQSGSSISLSLN 180
Db 121 FSGFSYLSLIQTTNATGTGAISTGACSIQSNYSCYFGQNFNDNGALQSGSSISLSLN 180
QY 181 PNLTFAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNNKAI 240
Db 181 PNLTFAKNKATOKGALYSTGGITINNTLNSASFSENTAANGGAIYTEASSFISNNKAI 240
QY 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLDNGELNFTGNATITSGGAIYTDNLVLS 300
Db 241 SFINNSVTATSGGAIYCSSTSAPKPVLTLDNGELNFTGNATITSGGAIYTDNLVLS 300
QY 301 GPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITFEQNTVVKGASSQTTRNS 360
Db 301 GPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITFEQNTVVKGASSQTTRNS 360
QY 361 INIGNTNAKIVOLRASQNTIYFYDPITTSITAALSDALNNGPDLAGNPAYOGTIVFSG 420
Db 361 INIGNTNAKIVOLRASQNTIYFYDPITTSITAALSDALNNGPDLAGNPAYOGTIVFSG 420
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSGSTLLMDAGTTLET 480
Db 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSGSTLLMDAGTTLET 480
QY 481 ADGITTINNLVNDLSKETKKTATKATQASQVTLSGSLSLVDPGSGNYEDVSWNNPQVF 540
Db 481 ADGITTINNLVNDLSKETKKTATKATQASQVTLSGSLSLVDPGSGNYEDVSWNNPQVF 540
QY 541 SCFLTADDDPANIHTLAADPLEKNPIHWGQGNWALSQEDTATKSKAATLTWTKTGY 600
Db 541 SCFLTADDDPANIHTLAADPLEKNPIHWGQGNWALSQEDTATKSKAATLTWTKTGY 600
QY 601 NPNERGRLVANTLWGSFVDRSITQOLVATKVRQSOETRGITWCEGINSFHKDSTKINK 660
Db 601 NPNERGRLVANTLWGSFVDRSITQOLVATKVRQSOETRGITWCEGINSFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYASLHLOHLATLS 720
Db 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYASLHLOHLATLS 720

```



```
QY 721 SPSLLRYPGSESEQVLFDAQISYISKNTMKTYTTOAPKGESSWYNDGCALELASSLP 780
|||||
Db 721 SPSLLRYPGSESEQVLFDAQISYISKNTMKTYTTOAPKGESSWYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSVPITFERFS 840
|||||
Db 781 HTALSHEGLFHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSVPITFERFS 840
QY 841 RNERASYEATVIYVADVVRKPNDCDTALLINNTSKTTGTNLSRQAGICRAGIFYAFSPN 900
|||||
Db 841 RNERASYEATVIYVADVVRKPNDCDTALLINNTSKTTGTNLSRQAGICRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
|||||
Db 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928

RESULT 10
US-10-312-273-33
; Sequence 33, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 33
; LENGTH: 928
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-33

Query Match 67.3%; Score 625; DB 29; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MKSSLHWP LISSSLALPLSLNFSAFAVEINLGPNTSFSGPGYTPPAQTTNADGTIYN 60
|||||
Db 1 MKSSLHWP LISSSLALPLSLNFSAFAVEINLGPNTSFSGPGYTPPAQTTNADGTIYN 60
QY 61 LTGDVSIITNAGSPALFATSCFKETTNLSPFGCHGYQFLQNDAGANTFTNTAANKLLS 120
|||||
Db 61 LTGDVSIITNAGSPALFATSCFKETTNLSPFGCHGYQFLQNDAGANTFTNTAANKLLS 120
QY 121 FSGFSYLSLIQTTNATGTGAIKSTGACISQNSYSCYFGQNFSDNDGALOGSSISLSLN 180
|||||
Db 121 FSGFSYLSLIQTTNATGTGAIKSTGACISQNSYSCYFGQNFSDNDGALOGSSISLSLN 180
QY 181 PNLTFAKNKATQKGALYSTGGITINNTLNSAFSESENTAANGGAIYTEASSFTSSNKAI 240
|||||
Db 181 PNLTFAKNKATQKGALYSTGGITINNTLNSAFSESENTAANGGAIYTEASSFTSSNKAI 240
QY 241 SFINNSVTATSGAICYCSSTSAPKPVLTLSNDNGELNFTGNTAITSGGAIYTDNLVLS 300
|||||
Db 241 SFINNSVTATSGAICYCSSTSAPKPVLTLSNDNGELNFTGNTAITSGGAIYTDNLVLS 300
```

```
QY 301 GGPTLFKNNSCYDTAAPLGGAIAIADSGSLSLSGALGGDITTEGNTVVKGASSSQTTRNS 360
|||||
Db 301 GGPTLFKNNSCYDTAAPLGGAIAIADSGSLSLSGALGGDITTEGNTVVKGASSSQTTRNS 360
QY 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSITAALSDALNGLPDLACNPAQGTIVFSG 420
|||||
Db 361 INIGNTNAKIVOLRASOGNTIYFYDPTITTSITAALSDALNGLPDLACNPAQGTIVFSG 420
QY 421 EKLSEAAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFGSPGSLTMDAGTTLET 480
|||||
Db 421 EKLSEAAEADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFGSPGSLTMDAGTTLET 480
QY 481 ADGTTINNLVNDLSKETKTKATQASQTVTLTSGSLSLVDPGSGNYVEDVSNNPQVF 540
|||||
Db 481 ADGTTINNLVNDLSKETKTKATQASQTVTLTSGSLSLVDPGSGNYVEDVSNNPQVF 540
QY 541 SCLTLTADDPANIHTDLAADPLEKNPIHWCYQGNWALSQWEDTATKSKAATLTWTKGY 600
|||||
Db 541 SCLTLTADDPANIHTDLAADPLEKNPIHWCYQGNWALSQWEDTATKSKAATLTWTKGY 600
QY 601 NPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSQETRGICWEGISNFFHKDSTKINK 660
|||||
Db 601 NPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSQETRGICWEGISNFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLTAAFCOLFGKDRDHFINKNRASAYASLHLOHLATLS 720
|||||
Db 661 GFRHISAGYVVGATTTLASDNLTAAFCOLFGKDRDHFINKNRASAYASLHLOHLATLS 720
QY 721 SPSLLRYPGSESEQVLFDAQISYISKNTMKTYTTOAPKGESSWYNDGCALELASSLP 780
|||||
Db 721 SPSLLRYPGSESEQVLFDAQISYISKNTMKTYTTOAPKGESSWYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSVPITFERFS 840
|||||
Db 781 HTALSHEGLFHAYFPFIKVEASYIHODSFKERNTTLVRSFSDGLINVSVPITFERFS 840
QY 841 RNERASYEATVIYVADVVRKPNDCDTALLINNTSKTTGTNLSRQAGICRAGIFYAFSPN 900
|||||
Db 841 RNERASYEATVIYVADVVRKPNDCDTALLINNTSKTTGTNLSRQAGICRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
|||||
Db 901 LEVTSNLSMEIRGSSRSYNADLGKQF 928
```

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RESULT 11
US-09-438-185-449
; Sequence 449, Application US/09438185
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne
; APPLICANT: Kalman, Sue
; APPLICANT: Davis, Ronald
; TITLE OF INVENTION: The Regents of the University of California
; FILE REFERENCE: 018941-000411US
; CURRENT APPLICATION NUMBER: US/09/438,185
; CURRENT FILING DATE: 1999-11-11
; PRIOR APPLICATION NUMBER: US 60/108,279
; PRIOR FILING DATE: 1998-11-12
; PRIOR APPLICATION NUMBER: US 60/128,606
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 1074
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 449
; LENGTH: 937
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-09-438-185-449

Query Match 67.3%; Score 625; DB 18; Length 937;
Best Local Similarity 99.7%; Pred. No. 0;
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Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
QY 1 MKSSLHWFILSSSLALPLSLNFAFAAIVEINLGNPTNSFGPGCTYTPPAQTTNADGTIYN 60
Db 10 MKSSLHWFILSSSLALPLSLNFAFAAIVEINLGNPTNSFGPGCTYTPPAQTTNADGTIYN 69
QY 61 LTGDVSIITNAGSPALTATSCFKETTCNLGSLFQGHGYOFLQNDAGANCTFTTAANKLLS 120
Db 70 LTGDVSIITNAGSPALTATSCFKETTCNLGSLFQGHGYOFLQNDAGANCTFTTAANKLLS 129
QY 121 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFGQNSDNGALQSGSSISLSLN 180
Db 130 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFGQNSDNGALQSGSSISLSLN 189
QY 181 PNLTFAKNKATOKGALYSTGGITINNTLNSAFSENTAANGGAIYTBASSFISNKA 240
Db 190 PNLTFAKNKATOKGALYSTGGITINNTLNSAFSENTAANGGAIYTBASSFISNKA 249
QY 241 SPINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTAITSGGAIYTDNLVLSS 300
Db 250 SPINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTAITSGGAIYTDNLVLSS 309
QY 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITTFEGNTVVKGASSSQTTRNS 360
Db 310 GGPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITTFEGNTVVKGASSSQTTRNS 369
QY 361 INIGNTNAKIVOLRASQNTIYFYDPIITTSITAALSADALNGLPDLAGNPAYOGTIVFSG 420
Db 370 INIGNTNAKIVOLRASQNTIYFYDPIITTSITAALSADALNGLPDLAGNPAYOGTIVFSG 429
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 480
Db 430 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 489
QY 481 ADGITINNLVNDLSKETKKGTATKATQASQVTLTSGSLSLVDPGSGNYEDYSWNPQVF 540
Db 490 ADGITINNLVNDLSKETKKGTATKATQASQVTLTSGSLSLVDPGSGNYEDYSWNPQVF 549
QY 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
Db 550 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 609
QY 601 NPENRRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGINSFHHKSTKINK 660
Db 610 NPENRRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGINSFHHKSTKINK 669
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASLHLOHLATLS 720
Db 670 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASLHLOHLATLS 729
QY 721 SPILLRYLPGSESEQPVLFDAQISYIYKNTMKTYITQAPKCESSWYNDGCALEASSLP 780
Db 730 SPILLRYLPGSESEQPVLFDAQISYIYKNTMKTYITQAPKCESSWYNDGCALEASSLP 789
QY 781 HTALSHGELFHAYFFPIKVEASYIHODSFKERNTLVRSFDSGDLINVSVPIGITFERFS 840
Db 790 HTALSHGELFHAYFFPIKVEASYIHODSFKERNTLVRSFDSGDLINVSVPIGITFERFS 849
QY 841 RNERASYEATVIYADVVRKPNDCCTTALLINNTSKTTGTNLRSQAGICRAGIFYAFSPN 900
Db 850 RNERASYEATVIYADVVRKPNDCCTTALLINNTSKTTGTNLRSQAGICRAGIFYAFSPN 909
QY 901 LEVTSNLSMEIRGSSRSYNADLGGKFOF 928
Db 910 LEVTSNLSMEIRGSSRSYNADLGGKFOF 937
```

RESULT 12

US-09-438-185A-449
; Sequence 449, Application US/09438185A
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne

```
; APPLICANT: Kalman, Sue  
; APPLICANT: Davis, Ronald  
; TITLE OF INVENTION: The Regents of the University of California  
; FILE REFERENCE: 018941-000411IUS  
; CURRENT APPLICATION NUMBER: US/09/438,185A  
; CURRENT FILING DATE: 2002-03-13  
; PRIOR APPLICATION NUMBER: US 60/108,279  
; PRIOR FILING DATE: 1998-11-12  
; PRIOR APPLICATION NUMBER: US 60/128,606  
; PRIOR FILING DATE: 1999-04-08  
; NUMBER OF SEQ ID NOS: 1074  
; SOFTWARE: FASTSEQ for Windows Version 3.0  
; SEQ ID NO 449  
; LENGTH: 937  
; TYPE: PRT  
; ORGANISM: Chlamydia pneumoniae  
; FEATURE:  
; OTHER INFORMATION: CPn0447  
; US-09-438-185A-449
```

Query Match 67.3%; Score 625; DB 18; Length 937;

Best Local Similarity 99.7%; Pred. No. 0;

Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

```
QY 1 MKSSLHWFILSSSLALPLSLNFAFAAIVEINLGNPTNSFGPGCTYTPPAQTTNADGTIYN 60
Db 10 MKSSLHWFILSSSLALPLSLNFAFAAIVEINLGNPTNSFGPGCTYTPPAQTTNADGTIYN 69
QY 61 LTGDVSIITNAGSPALTATSCFKETTCNLGSLFQGHGYOFLQNDAGANCTFTTAANKLLS 120
Db 70 LTGDVSIITNAGSPALTATSCFKETTCNLGSLFQGHGYOFLQNDAGANCTFTTAANKLLS 129
QY 121 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFGQNSDNGALQSGSSISLSLN 180
Db 130 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFGQNSDNGALQSGSSISLSLN 189
QY 181 PNLTFAKNKATOKGALYSTGGITINNTLNSAFSENTAANGGAIYTBASSFISNKA 240
Db 190 PNLTFAKNKATOKGALYSTGGITINNTLNSAFSENTAANGGAIYTBASSFISNKA 249
QY 241 SPINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTAITSGGAIYTDNLVLSS 300
Db 250 SPINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTAITSGGAIYTDNLVLSS 309
QY 301 GGPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITTFEGNTVVKGASSSQTTRNS 360
Db 310 GGPTLFKNNSGYDTAAPLGGAIAIADSGSLSLALGGDITTFEGNTVVKGASSSQTTRNS 369
QY 361 INIGNTNAKIVOLRASQNTIYFYDPIITTSITAALSADALNGLPDLAGNPAYOGTIVFSG 420
Db 370 INIGNTNAKIVOLRASQNTIYFYDPIITTSITAALSADALNGLPDLAGNPAYOGTIVFSG 429
QY 421 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 480
Db 430 EKLSEAAEAADNLKSTIQOPLTLAGGOLSLKSGVTLVAKSFQSPGSLTLLMDAGTTLET 489
QY 481 ADGITINNLVNDLSKETKKGTATKATQASQVTLTSGSLSLVDPGSGNYEDYSWNPQVF 540
Db 490 ADGITINNLVNDLSKETKKGTATKATQASQVTLTSGSLSLVDPGSGNYEDYSWNPQVF 549
QY 541 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 600
Db 550 SCLTLTADDPANIHITDLAADPLEKNPIHWGQGNWALSQWEDTATKSKAATLTWTKGY 609
QY 601 NPENRRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGINSFHHKSTKINK 660
Db 610 NPENRRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRGIWCEGINSFHHKSTKINK 669
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASLHLOHLATLS 720
Db 670 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASLHLOHLATLS 729
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QY 721 SPSLLRYPGSESEQPVLFDAQISYISKNTMKTYTQAPKGESSWYNDGCALASSLP 780
DB 730 SPSLLRYPGSESEQPVLFDAQISYISKNTMKTYTQAPKGESSWYNDGCALASSLP 789
QY 781 HTALSHGELFHAYFFFIKVEASYIHODSFKERNTTLVRSFSDGLINVSPIGIFERFS 840
DB 790 HTALSHGELFHAYFFFIKVEASYIHODSFKERNTTLVRSFSDGLINVSPIGIFERFS 849
QY 841 RNERASYEATVIYADVYRKKNPDCCTALLINNTSKTCTNLSRQAGIGRAGIFYAFSPN 900
DB 850 RNERASYEATVIYADVYRKKNPDCCTALLINNTSKTCTNLSRQAGIGRAGIFYAFSPN 909
QY 901 LEVTSNLSMEIRGSSRSYNADLGKQFQ 928
DB 910 LEVTSNLSMEIRGSSRSYNADLGKQFQ 937

RESULT 13

US-09-446-677B-14
; Sequence 14, Application US/09446677B
; GENERAL INFORMATION:
; APPLICANT: BIRKELUND, Svend
; CHRISTIANSEN, Gunna
; HEBSSGAARD PEDERSEN, Anna-Sofie
; MYGIND, Per
; KNUDSEN, Katrine
; TITLE OF INVENTION: SURFACE EXPOSED PROTEINS FROM CHLAMYDIA
; PNEUMONIAE
; NUMBER OF SEQUENCES: 30
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: BROWDY AND NEIMARK, P.L.L.C.
; STREET: 624 Ninth Street, N.W., Suite 300
; CITY: Washington
; STATE: D.C.
; COUNTRY: USA
; ZIP: 20001

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA: US/09/446,677B
APPLICATION NUMBER: 28.005
FILING DATE: 24-Mar-2000
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/DK98/00266
FILING DATE: 19-JUN-1998
APPLICATION NUMBER: DK 0744/97
FILING DATE: 23-JUN-1997

ATTORNEY/AGENT INFORMATION:

NAME: COOPER, Iver P.
REGISTRATION NUMBER: 28.005
REFERENCE/DOCKET NUMBER: BIRKELUND-1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528

INFORMATION FOR SEQ ID NO: 14:

SEQUENCE CHARACTERISTICS:
LENGTH: 928 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 14:

US-09-446-677B-14

Query Match 47.0%; Score 436; DB 18; Length 928;
Best Local Similarity 99.8%; Pred. No. 0;
Matches 536; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 392 TAALSDALNLNGPDLAGNPAYOGTIVFSGEKLSEAEAEADNLKSTIOOPLTLAGGQLSL 451
DB 392 TAALSDALNLNGPDLAGNPAYOGTIVFSGEKLSEAEAEADNLKSTIOOPLTLAGGQLSL 451

QY 452 KSGVTLVAKFSQSPGSTLLMDAGTTLETADGITINNVLVNDLSLKETKKTKLKTQASQ 511
DB 452 KSGVTLVAKFSQSPGSTLLMDAGTTLETADGITINNVLVNDLSLKETKKTKLKTQASQ 511
QY 512 TVTSLGSLSLVDPGSGNYEDVSWNNPQVFSCLTTLTADDPANIHITDLAADPLEKKNPIHWG 571
DB 512 TVTSLGSLSLVDPGSGNYEDVSWNNPQVFSCLTTLTADDPANIHITDLAADPLEKKNPIHWG 571
QY 572 YQGNWALSQWEDTATKKAATLTWTGTGYNPNPERRGTLVANTLWGSFVDVRSIQOLVAT 631
DB 572 YQGNWALSQWEDTATKKAATLTWTGTGYNPNPERRGTLVANTLWGSFVDVRSIQOLVAT 631
QY 632 KVRQSOETRGIWCEGISNFFPKDSTKINKGFRHISAGYVVGATTTLASDNLIITAAFCOLF 691
DB 632 KVRQSOETRGIWCEGISNFFPKDSTKINKGFRHISAGYVVGATTTLASDNLIITAAFCOLF 691
QY 692 GKDRDHFINKNRASAYAAASHLQHLATLSSPSLLRLYLPGESEQPVLFDAQISYISKNT 751
DB 692 GKDRDHFINKNRASAYAAASHLQHLATLSSPSLLRLYLPGESEQPVLFDAQISYISKNT 751
QY 752 MKTYTQAPKGESSWYNDGCALASSLPHTALSHEGLFHAYFFFIKVEASYIHODSFKE 811
DB 752 MKTYTQAPKGESSWYNDGCALASSLPHTALSHEGLFHAYFFFIKVEASYIHODSFKE 811
QY 812 RNTTLVRSFSDGLINVSPIGIFERFSRNERASYEATVIYADVYRKKNPDCCTALLIN 871
DB 812 RNTTLVRSFSDGLINVSPIGIFERFSRNERASYEATVIYADVYRKKNPDCCTALLIN 871
QY 872 NTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADLGKQFQ 928
DB 872 NTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADLGKQFQ 928

RESULT 14

US-10-289-762-472
; Sequence 472, Application US/10289762
; GENERAL INFORMATION:

APPLICANT: Grifffais, R.

TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragm-
TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, p-
TITLE OF INVENTION: and treatment of infection

FILE REFERENCE: 9710-003-999

CURRENT APPLICATION NUMBER: US/10/289,762

CURRENT FILING DATE: 2003-03-27

NUMBER OF SEQ ID NOS: 6849

SEQ ID NO 472

LENGTH: 927

TYPE: PRT

ORGANISM: Chlamydia pneumoniae

FEATURE:

NAME/KEY: SITE

LOCATION: 1...927

OTHER INFORMATION: Xaa-unknown or other

US-10-289-762-472

Query Match

Best Local Similarity 45.9%; Score 426; DB 28; Length 927;

Matches 426; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 503 TLKATQASQVTLTSGSLSLVDPGSGNYEDVSWNNPQVFSCLTTLTADDPANIHITDLAADP 562
DB 503 TLKATQASQVTLTSGSLSLVDPGSGNYEDVSWNNPQVFSCLTTLTADDPANIHITDLAADP 561

QY 563 LEKNPIHWGYOGNWNALSQWEDTATKKAATLTWTGTGYNPNPERRGTLVANTLWGSFVDV 622
DB 563 LEKNPIHWGYOGNWNALSQWEDTATKKAATLTWTGTGYNPNPERRGTLVANTLWGSFVDV 621

QY 623 RSTQOOLVATKVRQSOETRGIWCEGISNFFHKDSTKINKGFRHISAGYVVGATTTLASDNL 682
DB 623 RSTQOOLVATKVRQSOETRGIWCEGISNFFHKDSTKINKGFRHISAGYVVGATTTLASDNL 681

QY 683 ITAAFCOLFQKDRDHFINKNRASAYAAASHLQHLATLSSPSLLRLYLPGESEQPVLFDAQ 742

Db 682 ITAAFCQLFGKDEHFIKKNRASAYASLHLQHLATLSSPDLRLYPGSESEQVLFDAQ 741
QY 743 ISYISKNTMKTYTQAPKGSSWYNDGCALASSLPHALSHGLFHFAYFPFIKVEAS 802
Db 742 ISYISKNTMKTYTQAPKGSSWYNDGCALASSLPHALSHGLFHFAYFPFIKVEAS 801
QY 803 YHQDSFKERNITLVRSFDSGLINVSPIGTFIFERSRNERASYEATVIYVADYVRKNP 862
Db 802 YHQDSFKERNITLVRSFDSGLINVSPIGTFIFERSRNERASYEATVIYVADYVRKNP 861
QY 863 DCTALLINNTSKWKTGTNLRSQAGIGRAGIYAFSPNLEVTNLSMEIRGSSRSYNADL 922
Db 862 DCTALLINNTSKWKTGTNLRSQAGIGRAGIYAFSPNLEVTNLSMEIRGSSRSYNADL 921
QY 923 GKKQF 928
Db 922 GKKQF 927

RESULT 15

US-09-446-677B-16

; Sequence 16, Application US/09446677B

; GENERAL INFORMATION:

; APPLICANT: BIRKELUND, Svend

; CHRISTIANSEN, Gunna

; HEBGAARD PEDERSEN, Anna-Sofie

; MYGIND, Per

; KNUDSEN, Katrine

; TITLE OF INVENTION: SURFACE EXPOSED PROTEINS FROM CHLAMYDIA

; CORRESPONDENCE ADDRESS:

; ADDRESS: BROWDY AND NEIMARK, P.L.L.C.

; STREET: 624 Ninth Street, N.W., Suite 300

; CITY: Washington

; STATE: D.C.

; COUNTRY: USA

; ZIP: 20001

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/446,677B

; FILING DATE: 24-Mar-2000

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/DK98/00266

; FILING DATE: 19-JUN-1998

; APPLICATION NUMBER: DK 0744/97

; FILING DATE: 23-JUN-1997

; ATTORNEY/AGENT INFORMATION:

; NAME: COOPER, Iver P.

; REGISTRATION NUMBER: 28.005

; REFERENCE/DOCKET NUMBER: BIRKELUND-1

; TELEPHONE: 202-628-5197

; TELEFAX: 202-737-3528

; INFORMATION FOR SEQ ID NO: 16:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 930 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: peptide

; SEQUENCE DESCRIPTION: SEQ ID NO: 16:

US-09-446-677B-16

Query Match 1.7%; Score 16; DB 18; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIADSGSLSLSA 334
Db 324 GGAIADSGSLSLSA 339

RESULT 16

US-09-857-128-15

; Sequence 15, Application US/09857128

; GENERAL INFORMATION:

; APPLICANT: Aventis Pasteur Limited

; APPLICANT: Mordin et al.

; TITLE OF INVENTION: Chlamydia antigens and corresponding DNA fragments and uses

; FILE REFERENCE: 77813-2

; CURRENT APPLICATION NUMBER: US/09/857,128

; CURRENT FILING DATE: 2001-10-29

; PRIOR APPLICATION NUMBER: US 60/110,427

; PRIOR FILING DATE: 1998-12-01

; PRIOR APPLICATION NUMBER: US 60/110,438

; PRIOR FILING DATE: 1998-12-01

; PRIOR APPLICATION NUMBER: US 60/110,339

; PRIOR FILING DATE: 1998-12-01

; PRIOR APPLICATION NUMBER: US 60/110,428

; PRIOR FILING DATE: 1998-12-01

; PRIOR APPLICATION NUMBER: US 60/110,340

; PRIOR FILING DATE: 1998-12-01

; NUMBER OF SEQ ID NOS: 27

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 15

; LENGTH: 930

; TYPE: PRT

; ORGANISM: Chlamydia pneumoniae

US-09-857-128-15

Query Match 1.7%; Score 16; DB 23; Length 930;

Best Local Similarity 100.0%; Pred. No. 2.2e-05;

Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIADSGSLSLSA 334
Db 324 GGAIADSGSLSLSA 339

RESULT 17

US-10-282-122A-54680

; Sequence 54680, Application US/10282122A

; GENERAL INFORMATION:

; APPLICANT: Wang, Liangsu

; APPLICANT: Zamudio, Carlos

; APPLICANT: Malone, Cheryl

; APPLICANT: Haselbeck, Robert

; APPLICANT: Ohlsen, Kari

; APPLICANT: Zyskind, Judith

; APPLICANT: Wall, Daniel

; APPLICANT: Trawick, John

; APPLICANT: Carr, Grant

; APPLICANT: Yamamoto, Robert

; APPLICANT: Forsyth, R.

; APPLICANT: Xu, H.

; TITLE OF INVENTION: Identification of Essential Genes in Microorganisms

; FILE REFERENCE: ELITRA.034A

; CURRENT APPLICATION NUMBER: US/10/282,122A

; CURRENT FILING DATE: 2003-02-20

; PRIOR APPLICATION NUMBER: 60/191,078

; PRIOR FILING DATE: 2000-03-21

; PRIOR APPLICATION NUMBER: 60/206,848

; PRIOR FILING DATE: 2000-05-23

; PRIOR APPLICATION NUMBER: 60/207,727

; PRIOR FILING DATE: 2000-05-26

; PRIOR APPLICATION NUMBER: 60/230,335

; PRIOR FILING DATE: 2000-09-06

; PRIOR APPLICATION NUMBER: 60/230,347

; PRIOR FILING DATE: 2000-09-09

; PRIOR APPLICATION NUMBER: 60/242,578

; PRIOR FILING DATE: 2000-10-23
; PRIOR APPLICATION NUMBER: 60/253,625
; PRIOR FILING DATE: 2000-11-27
; PRIOR APPLICATION NUMBER: 60/257,931
; PRIOR FILING DATE: 2000-12-22
; PRIOR APPLICATION NUMBER: 60/267,636
; PRIOR FILING DATE: 2001-02-09
; PRIOR APPLICATION NUMBER: 60/269,308
; PRIOR FILING DATE: 2001-02-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 78614
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 54680
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-282-122A-54680

Query Match 1.7%; Score 16; DB 28; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 319 GGAIAIADSGSLSLSA 334
|||||
Db 324 GGAIAIADSGSLSLSA 339

RESULT 18

US-10-289-762-470
; Sequence 470, Application US/10289762
; GENERAL INFORMATION:
; APPLICANT: Griflais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments thereof and uses thereof, in particular for the diagnosis, prevention of infection and treatment of infection
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/10/289,762
; CURRENT FILING DATE: 2003-03-27
; NUMBER OF SEQ ID NOS: 5849
; SEQ ID NO 470
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-289-762-470

Query Match 1.7%; Score 16; DB 28; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 319 GGAIAIADSGSLSLSA 334
|||||
Db 324 GGAIAIADSGSLSLSA 339

RESULT 19

US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18

; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 45
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 319 GGAIAIADSGSLSLSA 334
|||||
Db 324 GGAIAIADSGSLSLSA 339

RESULT 20

US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 45
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 319 GGAIAIADSGSLSLSA 334
|||||
Db 324 GGAIAIADSGSLSLSA 339

RESULT 21

US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON SpA
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273

; SEQ ID NO 43

; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIATADSGSLSLA 334
|||||
Db 324 GGAIATADSGSLSLA 339

RESULT 25
US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 45
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIATADSGSLSLA 334
|||||
Db 324 GGAIATADSGSLSLA 339

RESULT 26
US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07

; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 45
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIATADSGSLSLA 334
|||||
Db 324 GGAIATADSGSLSLA 339

RESULT 27
US-10-312-273-45
; Sequence 45, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 45
; LENGTH: 930
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-45

Query Match 1.7%; Score 16; DB 29; Length 930;
Best Local Similarity 100.0%; Pred. No. 2.2e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIATADSGSLSLA 334
|||||
Db 324 GGAIATADSGSLSLA 339

RESULT 28
US-09-438-185-448
; Sequence 448, Application US/09438185
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne

APPLICANT: Kalman, Sue
APPLICANT: Davis, Ronald
TITLE OF INVENTION: The Regents of the University of California
FILE REFERENCE: 018941-000411US
CURRENT APPLICATION NUMBER: US/09/438,185
CURRENT FILING DATE: 1999-11-11
PRIOR APPLICATION NUMBER: US 60/108,279
PRIOR FILING DATE: 1998-11-12
PRIOR APPLICATION NUMBER: US 60/128,606
PRIOR FILING DATE: 1999-04-08
NUMBER OF SEQ ID NOS: 1074
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 448
LENGTH: 938
TYPE: PRT
ORGANISM: Chlamydia pneumoniae
US-09-438-185-448

Query Match 1.7%; Score 16; DB 18; Length 938;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIAIADSGSLSLSA 334

|||||

Db 332 GGAIAIADSGSLSLSA 347

RESULT 29

US-09-438-185A-448
Sequence 448, Application US/09438185A

GENERAL INFORMATION:

APPLICANT: Stephens, Richard

APPLICANT: Mitchell, Wayne

APPLICANT: Kalman, Sue

APPLICANT: Davis, Ronald

APPLICANT: The Regents of the University of California

TITLE OF INVENTION: Chlamydia pneumoniae Genome Sequence

FILE REFERENCE: 018941-000411US

CURRENT APPLICATION NUMBER: US/09/438,185A

CURRENT FILING DATE: 2002-03-13

PRIOR APPLICATION NUMBER: US 60/108,279

PRIOR FILING DATE: 1998-11-12

PRIOR APPLICATION NUMBER: US 60/128,606

PRIOR FILING DATE: 1999-04-08

NUMBER OF SEQ ID NOS: 1074

SOFTWARE: FastSeq for Windows Version 3.0

SEQ ID NO 448

LENGTH: 938

TYPE: PRT

ORGANISM: Chlamydia pneumoniae

FEATURE:

OTHER INFORMATION: CPn0446

US-09-438-185A-448

Query Match 1.7%; Score 16; DB 18; Length 938;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIAIADSGSLSLSA 334

|||||

Db 332 GGAIAIADSGSLSLSA 347

RESULT 30

US-09-857-128-22

Sequence 22, Application US/09857128

GENERAL INFORMATION:

APPLICANT: Aventis Pasteur Limited

APPLICANT: Mardin et al.

TITLE OF INVENTION: Chlamydia antigens and corresponding DNA fragments and uses there

FILE REFERENCE: 77813-2

CURRENT APPLICATION NUMBER: US/09/857,128

CURRENT FILING DATE: 2001-10-29
PRIOR APPLICATION NUMBER: US 60/110,427
PRIOR FILING DATE: 1998-12-01
PRIOR APPLICATION NUMBER: US 60/110,438
PRIOR FILING DATE: 1998-12-01
PRIOR APPLICATION NUMBER: US 60/110,339
PRIOR FILING DATE: 1998-12-01
PRIOR APPLICATION NUMBER: US 60/110,428
PRIOR FILING DATE: 1998-12-01
PRIOR APPLICATION NUMBER: US 60/110,340
PRIOR FILING DATE: 1998-12-01
NUMBER OF SEQ ID NOS: 27
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 22
LENGTH: 14
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: B-cell epitope
US-09-857-128-22

Query Match 1.5%; Score 14; DB 23; Length 14;
Best Local Similarity 100.0%; Pred. No. 3.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 595 WTKGTGYNPNPERRG 608

|||||

Db 1 WTKGTGYNPNPERRG 14

RESULT 31

US-10-312-273-15

Sequence 15, Application US/10312273

GENERAL INFORMATION:

APPLICANT: CHIRON Spa

TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE

FILE REFERENCE: P025035W0

CURRENT APPLICATION NUMBER: US/10/312,273

CURRENT FILING DATE: 2002-12-20

PRIOR APPLICATION NUMBER: 0016363.4

PRIOR FILING DATE: 2000-07-03

PRIOR APPLICATION NUMBER: 0017047.2

PRIOR FILING DATE: 2000-07-11

PRIOR APPLICATION NUMBER: 0017983.8

PRIOR FILING DATE: 2000-07-21

PRIOR APPLICATION NUMBER: 0019368.0

PRIOR FILING DATE: 2000-08-07

PRIOR APPLICATION NUMBER: 0020440.4

PRIOR FILING DATE: 2000-08-18

PRIOR APPLICATION NUMBER: 0022583.9

PRIOR FILING DATE: 2000-09-14

PRIOR APPLICATION NUMBER: 0027549.5

PRIOR FILING DATE: 2000-11-10

PRIOR APPLICATION NUMBER: 0031706.5

PRIOR FILING DATE: 2000-12-22

NUMBER OF SEQ ID NOS: 664

SOFTWARE: SeqWin99, version 1.02

SEQ ID NO 15

LENGTH: 354

TYPE: PRT

ORGANISM: Chlamydia pneumoniae

US-10-312-273-15

Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 615 LWGSEFVDVRSIQ 626

|||||

Db 46 LWGSEFVDVRSIQ 57

RESULT 32

```
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15
```

```
Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy 615 LMGSFVDVRSIQ 626
Db 46 LMGSFVDVRSIQ 57
|||||
```

```
RESULT 33
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15
```

```
Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy 615 LMGSFVDVRSIQ 626
Db 46 LMGSFVDVRSIQ 57
|||||
```

```
RESULT 34
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15
```

```
Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
```

```
Qy 615 LMGSFVDVRSIQ 626
Db 46 LMGSFVDVRSIQ 57
|||||
```

```
RESULT 35
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
```



```

; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15

```

```

Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 615 LMGSFVDVRSIQ 626
| | | | | | | | | |
Db 46 LMGSFVDVRSIQ 57

```

```

RESULT 36
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15

```

```

Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 615 LMGSFVDVRSIQ 626
| | | | | | | | | |
Db 46 LMGSFVDVRSIQ 57

```

```

RESULT 37
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4

```

```

; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15

```

```

Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 615 LMGSFVDVRSIQ 626
| | | | | | | | | |
Db 46 LMGSFVDVRSIQ 57

```

```

RESULT 38
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035WO
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15

```

```

Query Match 1.3%; Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

```

QY 615 LMGSFVDVRSIQ 626
| | | | | | | | | |
Db 46 LMGSFVDVRSIQ 57

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```
RESULT 39
US-10-312-273-15
; Sequence 15, Application US/10312273
; GENERAL INFORMATION:
; APPLICANT: CHIRON Spa
; TITLE OF INVENTION: IMMUNISATION AGAINST CHLAMYDIA PNEUMONIAE
; FILE REFERENCE: P025035W0
; CURRENT APPLICATION NUMBER: US/10/312,273
; CURRENT FILING DATE: 2002-12-20
; PRIOR APPLICATION NUMBER: 0016363.4
; PRIOR FILING DATE: 2000-07-03
; PRIOR APPLICATION NUMBER: 0017047.2
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 0017983.8
; PRIOR FILING DATE: 2000-07-21
; PRIOR APPLICATION NUMBER: 0019368.0
; PRIOR FILING DATE: 2000-08-07
; PRIOR APPLICATION NUMBER: 0020440.4
; PRIOR FILING DATE: 2000-08-18
; PRIOR APPLICATION NUMBER: 0022583.9
; PRIOR FILING DATE: 2000-09-14
; PRIOR APPLICATION NUMBER: 0027549.5
; PRIOR FILING DATE: 2000-11-10
; PRIOR APPLICATION NUMBER: 0031706.5
; PRIOR FILING DATE: 2000-12-22
; NUMBER OF SEQ ID NOS: 664
; SOFTWARE: SeqWin99, version 1.02
; SEQ ID NO 15
; LENGTH: 354
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-312-273-15

Query Match      1.3%  Score 12; DB 29; Length 354;
Best Local Similarity 100.0%; Pred. No. 0.073;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      615  LMGSFVDVRSIQ 626
DB      46  LMGSFVDVRSIQ 57

RESULT 40
US-09-438-185-19
; Sequence 19, Application US/09438185
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne
; APPLICANT: Kalman, Sue
; APPLICANT: Davis, Ronald
; APPLICANT: The Regents of the University of California
; TITLE OF INVENTION: Chlamydia Pneumoniae Genome Sequence
; FILE REFERENCE: 018941-000411US
; CURRENT APPLICATION NUMBER: US/09/438,185
; CURRENT FILING DATE: 1998-11-11
; PRIOR APPLICATION NUMBER: US 60/108,279
; PRIOR FILING DATE: 1998-11-12
; PRIOR APPLICATION NUMBER: US 60/128,606
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 1074
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 359
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-09-438-185-19

Query Match      1.3%  Score 12; DB 18; Length 359;
Best Local Similarity 100.0%; Pred. No. 0.074;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      615  LMGSFVDVRSIQ 626
DB      46  LMGSFVDVRSIQ 57
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|||||
Db      51  LMGSFVDVRSIQ 62

RESULT 41
US-09-438-185A-19
; Sequence 19, Application US/09438185A
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne
; APPLICANT: Kalman, Sue
; APPLICANT: Davis, Ronald
; APPLICANT: The Regents of the University of California
; TITLE OF INVENTION: Chlamydia Pneumoniae Genome Sequence
; FILE REFERENCE: 018941-000411US
; CURRENT APPLICATION NUMBER: US/09/438,185A
; CURRENT FILING DATE: 2002-03-13
; PRIOR APPLICATION NUMBER: US 60/108,279
; PRIOR FILING DATE: 1998-11-12
; PRIOR APPLICATION NUMBER: US 60/128,606
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 1074
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 19
; LENGTH: 359
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
; OTHER INFORMATION: Cpn0017
US-09-438-185A-19

Query Match      1.3%  Score 12; DB 18; Length 359;
Best Local Similarity 100.0%; Pred. No. 0.074;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      615  LMGSFVDVRSIQ 626
DB      51  LMGSFVDVRSIQ 62

RESULT 42
US-10-289-762-32
; Sequence 32, Application US/10289762
; GENERAL INFORMATION:
; APPLICANT: Griffois, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragm-
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, p
; TITLE OF INVENTION: and treatment of infection
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/10/289,762
; CURRENT FILING DATE: 2003-03-27
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 32
; LENGTH: 507
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-289-762-32

Query Match      1.3%  Score 12; DB 28; Length 507;
Best Local Similarity 100.0%; Pred. No. 0.1;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      615  LMGSFVDVRSIQ 626
DB      199  LMGSFVDVRSIQ 210

RESULT 43
US-09-376-770-16
; Sequence 16, Application US/09376770
; GENERAL INFORMATION:
; APPLICANT: Murdin, Andrew
; TITLE OF INVENTION: CHLAMYDIA ANTIGENS AND CORRESPONDING DNA FRAGMENTS
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; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: 19721-006
; CURRENT APPLICATION NUMBER: US/09/376,770
; CURRENT FILING DATE: 1999-08-17
; EARLIER APPLICATION NUMBER: 60/097,187
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,188
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,189
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,190
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,195
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,196
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,197
; EARLIER FILING DATE: 1998-08-20
; EARLIER APPLICATION NUMBER: 60/097,191
; EARLIER FILING DATE: 1998-08-27
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
; LENGTH: 918
; TYPE: PRT
; ORGANISM: Chlamydia sp.
US-09-376-770-16

Query Match 1.3%; Score 12; DB 17; Length 918;
Best Local Similarity 100.0%; Pred. No. 0.18;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 615 LMGSFVDVRSIQ 626
|||||
DB 610 LMGSFVDVRSIQ 621

RESULT 44

US-09-446-677B-12
; Sequence 12, Application US/09446677B
; GENERAL INFORMATION:

APPLICANT: BIRKELUND, Svend
CHRISTIANSEN, Gunna
HERSGAARD PEDERSEN, Anna-Sofie
MYGIND, Per
KNUDSEN, Katrine

TITLE OF INVENTION: SURFACE EXPOSED PROTEINS FROM CHLAMYDIA PNEUMONIAE

NUMBER OF SEQUENCES: 30

CORRESPONDENCE ADDRESS:

ADDRESSEE: BROWDY AND NEIMARK, P.L.L.C.
STREET: 624 Ninth Street, N.W., Suite 300
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20001

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/446,677B

FILING DATE: 24-Mar-2000

PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/DK98/00266

FILING DATE: 19-JUN-1998

APPLICATION NUMBER: DK 0744/97

FILING DATE: 23-JUN-1997

ATTORNEY/AGENT INFORMATION:

NAME: COOPER, Iver P.

REGISTRATION NUMBER: 28,005

REFERENCE/DOCKET NUMBER: BIRKELUND-1

TELECOMMUNICATION INFORMATION:

TELEPHONE: 202-628-5197

TELEFAX: 202-737-3528

INFORMATION FOR SEQ ID NO: 12:

SEQUENCE CHARACTERISTICS:

LENGTH: 918 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: peptide

SEQUENCE DESCRIPTION: SEQ ID NO: 12:

US-09-446-677B-12

Query Match

Best Local Similarity 1.3%; Score 12; DB 18; Length 918;

Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 615 LMGSFVDVRSIQ 626

|||||

DB 610 LMGSFVDVRSIQ 621

RESULT 45

US-10-289-762-26

; Sequence 26, Application US/10289762

; GENERAL INFORMATION:

APPLICANT: Griflais, R.

TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, frag

TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, i

FILE REFERENCE: 9710-003-959

CURRENT APPLICATION NUMBER: US/10/289,762

CURRENT FILING DATE: 2003-03-27

NUMBER OF SEQ ID NOS: 6849

SEQ ID NO 26

LENGTH: 199

TYPE: PRT

ORGANISM: Chlamydia pneumoniae

US-10-289-762-26

Query Match

Best Local Similarity 1.1%; Score 10; DB 28; Length 199;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 319 GGAIATADSG 328

|||||

DB 70 GGAIATADSG 79

RESULT 46

US-09-791-537-61772

; Sequence 61772, Application US/09791537

; GENERAL INFORMATION:

APPLICANT: Bionomix, Inc.

APPLICANT: Debe, Derek

APPLICANT: Danzer, Joseph

TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY

TITLE OF INVENTION: METHODS OF USE THEREOF

FILE REFERENCE: 261/210

CURRENT APPLICATION NUMBER: US/09/791,537

CURRENT FILING DATE: 2001-02-22

NUMBER OF SEQ ID NOS: 153055

SOFTWARE: PatentIn version 3.0

SEQ ID NO 61772

LENGTH: 427

TYPE: PRT

ORGANISM: Chlamydophila pneumoniae

US-09-791-537-61772

Query Match

Best Local Similarity 1.1%; Score 10; DB 22; Length 427;

Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 416 IVFSGEKLSE 425
|||||
Db 412 IVFSGEKLSE 421

RESULT 47

US-10-289-762-31
; Sequence 31, Application US/10289762
; GENERAL INFORMATION:
; APPLICANT: Grifais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, prevention
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/10/289,762
; CURRENT FILING DATE: 2003-03-27
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 31
; LENGTH: 427
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-289-762-31

Query Match 1.1%; Score 10; DB 28; Length 427;
Best Local Similarity 100.0%; Pred. No. 7.9;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 416 IVFSGEKLSE 425
|||||
Db 412 IVFSGEKLSE 421

RESULT 48

US-10-289-762-29
; Sequence 29, Application US/10289762
; GENERAL INFORMATION:
; APPLICANT: Grifais, R.
; TITLE OF INVENTION: Chlamydia pneumoniae genomic sequence and polypeptides, fragments
; TITLE OF INVENTION: thereof and uses thereof, in particular for the diagnosis, prevention
; FILE REFERENCE: 9710-003-999
; CURRENT APPLICATION NUMBER: US/10/289,762
; CURRENT FILING DATE: 2003-03-27
; NUMBER OF SEQ ID NOS: 6849
; SEQ ID NO 29
; LENGTH: 597
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-10-289-762-29

Query Match 1.1%; Score 10; DB 28; Length 597;
Best Local Similarity 100.0%; Pred. No. 11;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 648 SNFFHKDSTK 657
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Db 499 SNFFHKDSTK 508

RESULT 49

US-09-438-185-18
; Sequence 18, Application US/09438185
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne
; APPLICANT: Kalman, Sue
; APPLICANT: Davis, Ronald
; TITLE OF INVENTION: The Regents of the University of California
; TITLE OF INVENTION: Chlamydia Pneumoniae Genome Sequence
; FILE REFERENCE: 018941-000411US
; CURRENT APPLICATION NUMBER: US/09/438,185
; CURRENT FILING DATE: 1999-11-11
; PRIOR APPLICATION NUMBER: US 60/108,279

; PRIOR FILING DATE: 1998-11-12
; PRIOR APPLICATION NUMBER: US 60/128,606
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 1074
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 18
; LENGTH: 602
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
US-09-438-185-18

Query Match 1.1%; Score 10; DB 18; Length 602;
Best Local Similarity 100.0%; Pred. No. 11;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 416 IVFSGEKLSE 425
|||||
Db 423 IVFSGEKLSE 432

RESULT 50

US-09-438-185A-18
; Sequence 18, Application US/09438185A
; GENERAL INFORMATION:
; APPLICANT: Stephens, Richard
; APPLICANT: Mitchell, Wayne
; APPLICANT: Kalman, Sue
; APPLICANT: Davis, Ronald
; TITLE OF INVENTION: The Regents of the University of California
; TITLE OF INVENTION: Chlamydia Pneumoniae Genome Sequence
; FILE REFERENCE: 018941-000411US
; CURRENT APPLICATION NUMBER: US/09/438,185A
; CURRENT FILING DATE: 2002-03-13
; PRIOR APPLICATION NUMBER: US 60/108,279
; PRIOR FILING DATE: 1998-11-12
; PRIOR APPLICATION NUMBER: US 60/128,606
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 1074
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 18
; LENGTH: 602
; TYPE: PRT
; ORGANISM: Chlamydia pneumoniae
; FEATURE:
; OTHER INFORMATION: CPn0016
US-09-438-185A-18

Query Match 1.1%; Score 10; DB 18; Length 602;
Best Local Similarity 100.0%; Pred. No. 11;
Matches 10; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 416 IVFSGEKLSE 425
|||||
Db 423 IVFSGEKLSE 432

Search completed: August 22, 2003, 15:55:23
Job time : 381 secs

GenCore version 5.1.1.6

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OM protein - protein search, using sw model

Run on: August 22, 2003, 15:34:41 ; Search time 99 Seconds

(without alignments)

1487.861 Million cell updates/sec

Title: US-09-857-128-14

Perfect score: 928

Sequence: 1 MKSSLHWFLISSSLALPLSL.....MEIRGSSRSYNADLGKQFQF 928

Scoring table:

OLIGO

Gapop 60.0 , Gapext 60.0

Searched: 1107863 seqs, 158726573 residues

Word size: 0

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Listing first 50 summaries

Database:

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 4: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1983.DAT.*
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 9: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1988.DAT.*
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 11: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1990.DAT.*
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 22: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.*
 23: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.*
 24: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	928	100.0	928	21	AA190239
2	625	67.3	928	23	ABB90542
3	436	47.0	928	20	AAW88423
4	426	45.9	927	20	AA135054
5	16	1.7	930	20	AA135052
6	16	1.7	930	20	AAW88424
7	16	1.7	930	21	AA190240
8	16	1.7	930	23	ABB90548
9	12	1.3	354	23	ABB90533
					Chlamydia antigen
					Chlamydia pneumonia
					Chlamydia pneumonia
					Chlamydia pneumonia
					Chlamydia pneumonia
					Chlamydia pneumonia
					Chlamydia antigen
					Chlamydia pneumonia

10	12	1.3	507	20	AA134614	Chlamydia pneumonia
11	12	1.3	918	20	AAW88422	Chlamydia pneumonia
12	12	1.3	918	21	AA163369	Amino acid sequenc
13	10	1.1	199	20	AA134608	Chlamydia pneumonia
14	10	1.1	427	20	AA134613	Chlamydia pneumonia
15	10	1.1	597	20	AA134611	Chlamydia pneumonia
16	10	1.1	610	20	AAW88431	Chlamydia pneumonia
17	10	1.1	643	20	AA135056	Chlamydia pneumonia
18	10	1.1	746	23	ABB90535	Chlamydia pneumonia
19	10	1.1	839	23	ABP56002	Chlamydia psittaci
20	10	1.1	839	23	ABB98211	Chlamydia polypt
21	10	1.1	839	24	ABU66267	C. psittaci protei
22	10	1.1	841	20	AAW88420	Chlamydia pneumonia
23	10	1.1	841	21	AA192818	C. pneumoniae CPN1
24	10	1.1	841	23	ABB90595	Chlamydia pneumonia
25	10	1.1	885	21	AA190238	Mature Chlamydia a
26	10	1.1	914	20	AAW88429	Chlamydia pneumonia
27	10	1.1	928	20	AAW88418	Chlamydia pneumonia
28	10	1.1	928	20	AAW88421	Chlamydia pneumonia
29	10	1.1	928	21	AA190237	Chlamydia antigen
30	10	1.1	928	21	AA194327	Chlamydia pneumonia
31	10	1.1	928	23	ABB90573	Chlamydia pneumonia
32	9	1.0	212	20	AA137236	Chlamydia trachoma
33	9	1.0	325	20	AA116752	Chlamydia HMW prot
34	9	1.0	494	20	AA134615	Chlamydia pneumonia
35	9	1.0	494	23	ABB90592	Chlamydia pneumonia
36	9	1.0	671	20	AA135050	Chlamydia pneumonia
37	9	1.0	871	21	AA195550	Chlamydia pneumonia
38	9	1.0	925	21	AA199843	Chlamydia pneumonia
39	9	1.0	936	21	AA199842	Chlamydia pneumonia
40	9	1.0	936	23	ABB90602	Chlamydia pneumonia
41	9	1.0	945	20	AAW88428	Chlamydia pneumonia
42	9	1.0	945	21	AA163368	Chlamydia pneumonia
43	9	1.0	982	21	AA136333	Amino acid sequenc
44	9	1.0	982	22	AA136320	C. trachomatis pmp
45	9	1.0	982	23	ABB94172	Protein encoded by
46	9	1.0	1006	21	AA136339	Chlamydia protein
47	9	1.0	1006	22	AA136320	C. trachomatis pmp
48	9	1.0	1006	23	ABB94178	Protein encoded by
49	9	1.0	1012	20	AA116735	Chlamydia protein
50	9	1.0	1013	20	AA116737	C. trachomatis LGV
						C. trachomatis B s

ALIGNMENTS

RESULT 1
 ID AAY90239 standard; Protein; 928 AA.
 AC AAY90239;
 XX AAY90239;
 DT 29-AUG-2000 (first entry)
 XX AAY90239;
 DE Chlamydia antigen CPN100638.

XX Chlamydia antigen; diagnosis; infection; community acquired pneumonia;
 KW therapy; upper respiratory tract disease; bronchitis; sinusitis;
 KW asthmatic bronchitis; adult-onset asthma; acute exacerbations of asthma.
 XX Chlamydia pneumoniae.
 OS Chlamydia pneumoniae.
 XX WO200032794-A2.
 PD 08-JUN-2000.
 XX 01-DEC-1999; 99WO-CA01147.
 PR 01-DEC-1998; 98US-0110339.
 PR 01-DEC-1998; 98US-0110340.
 PR 01-DEC-1998; 98US-0110427.
 PR 01-DEC-1998; 98US-0110428.
 PR 01-DEC-1998; 98US-0110438.

XX PA (CONN-) CONNAUGHT LAB LTD.
XX PI Murdin AD, Oomen RP, Wang J;
XX PT WPI; 2000-412339/35.
XX DR N-PSDB; AAA30851, AAA30852.
XX PT Nucleic acids encoding polypeptide antigens from Chlamydia useful for
XX PT preventing, diagnosing and treating diseases such as community acquired
XX PT pneumonia, bronchitis, sinusitis and asthmatic bronchitis, adult-onset
XX PT asthma -
XX PS Claim 16; Fig 5; 174pp; English.
XX CC This sequence is a Chlamydia antigen of the invention, designated
CC CPN100638. The nucleic acids (and their complementary sequences) may be
CC used as diagnostic agents for detecting the presence of nucleic acids
CC encoding Chlamydia antigens in samples according to standard methods,
CC and therefore, for diagnosing Chlamydia infections. For example, they may
CC be used as primers and probes for diagnostic polymerase chain reaction
CC (PCR) assays. Antisense sequences may be used to down regulate
CC expression of the proteins and may be used to treat infections. The
CC nucleic acids may also be used to produce the protein antigens they
CC encode according to standard recombinant DNA methodologies. The
CC proteins may then be used as antigens for the production of antibodies
CC (i.e. as vaccines) for preventing infection by Chlamydia. The
CC antibodies may also be used as diagnostic reagents for detecting
CC infections. Chlamydia is a pathogen implicated in the development of
CC (for example) community acquired pneumonia, upper respiratory tract
CC disease (especially bronchitis and sinusitis, asthmatic bronchitis,
CC adult-onset asthma and acute exacerbations of asthma in adults.
XX CC
XX SQ Sequence 928 AA;
Query Match 100.0%; Score 928; DB 21; Length 928;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 928; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGTNPSFGPGTTPPAQTNNADGTIN 60
DB 1 MKSSLHWFLLISSSLALPLSLNFAFAAIVEINLGTNPSFGPGTTPPAQTNNADGTIN 60
QY 61 LTGDSVITNAGSPTALTACFETKTNLSFQGHGYOFLQNDAGANCTFTTAAANKLLS 120
DB 61 LTGDSVITNAGSPTALTACFETKTNLSFQGHGYOFLQNDAGANCTFTTAAANKLLS 120
QY 121 FSGFSVLSLIOTNATTGTAIKSTGACSIQSNYSYCYGQNPNDNGALQSSLSLN 180
DB 121 FSGFSVLSLIOTNATTGTAIKSTGACSIQSNYSYCYGQNPNDNGALQSSLSLN 180
QY 181 PNLITAKNKATOKGALYSTGTTNTNLSASFSENTAANNNGGAIYTEASSFISNRAI 240
DB 181 PNLITAKNKATOKGALYSTGTTNTNLSASFSENTAANNNGGAIYTEASSFISNRAI 240
QY 241 SPINNSVTSATSGAIYCSSTAPKPVLTLSLNGELNFIQNTAITSGAIYTDNLVLS 300
DB 241 SPINNSVTSATSGAIYCSSTAPKPVLTLSLNGELNFIQNTAITSGAIYTDNLVLS 300
QY 301 GGPFTLKNNSGDTAPLGGATAIADSGSLSLALGGDITFEGNTVVKGASSQTTNRS 360
DB 301 GGPFTLKNNSGDTAPLGGATAIADSGSLSLALGGDITFEGNTVVKGASSQTTNRS 360
QY 361 INIGNTNAKIVOLRASQGNITFYDPITTSITAALSDALNLPDLAGNPAYQGIIVFSG 420
DB 361 INIGNTNAKIVOLRASQGNITFYDPITTSITAALSDALNLPDLAGNPAYQGIIVFSG 420
QY 421 EKLSEAEAAEADNLKSTIQOQUTLAGGQLSLKSGVTLVAKSFSPSGSTLLMDAGTTLET 480
DB 421 EKLSEAEAAEADNLKSTIQOQUTLAGGQLSLKSGVTLVAKSFSPSGSTLLMDAGTTLET 480
QY 481 ADGITINNLVLNVDLSKETKGTLLKATQASQTVTLSSLSLVDPSGNVYEDVSWNNPOVF 540
PI Ratti G, Grandi G;

DB 481 ADGITINNLVLNVDLSKETKGTLLKATQASQTVTLSSLSLVDPSGNVYEDVSWNNPOVF 540
QY 541 SCLTTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTCTCY 600
DB 541 SCLTTLTADDPANIHITDLAADPLEKNPIHWGYOGNWLWSQEDTATKSKAATLTWTCTCY 600
QY 601 NPNPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRTGTCWCEGINSFFHKDSTKINK 660
DB 601 NPNPERRGTLVANTLWGSFVDVRSIQOLVATKVRQSOETRTGTCWCEGINSFFHKDSTKINK 660
QY 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASHLQHLATLS 720
DB 661 GFRHISAGYVVGATTTLASDNLITAAFCOLFCKDRDHFINKNRASAYAAASHLQHLATLS 720
QY 721 SPSLLRYLPGESEPOVLFDAQISVIYSKNTMKTYITQAPKGESSWYNDGCALELASSLP 780
DB 721 SPSLLRYLPGESEPOVLFDAQISVIYSKNTMKTYITQAPKGESSWYNDGCALELASSLP 780
QY 781 HTALSHEGLFHAYFPFIKVEASYIHQDSFKERNNTLVRSFSDGLINVSVPITGTFERFS 840
DB 781 HTALSHEGLFHAYFPFIKVEASYIHQDSFKERNNTLVRSFSDGLINVSVPITGTFERFS 840
QY 841 RNERASYEATVIYVADVYRKPNPDCDTALLINNTSWKTTGTNLSROAGIGRAGIFYAFSPN 900
DB 841 RNERASYEATVIYVADVYRKPNPDCDTALLINNTSWKTTGTNLSROAGIGRAGIFYAFSPN 900
QY 901 LEVTSNLSMEIRGSSRSYNADLGKGFQF 928
DB 901 LEVTSNLSMEIRGSSRSYNADLGKGFQF 928
RESULT 2
ABB90542
ID ABB90542 standard; Protein; 928 AA.
XX AC ABB90542;
XX DT 29-JUL-2002 (first entry)
XX DE Chlamydia pneumoniae cp6731 protein, SEQ ID NO:33.
XX KW Chlamydia pneumoniae cp6731 protein, SEQ ID NO:33.
KW human respiratory disease; antigen; immunogen; vaccine; diagnosis;
KW coronary artery disease; cardiovascular disease; atherosclerosis;
KW cerebrovascular disease; carotid artery stenosis; myocardial infarction;
KW strain CWL029.
XX OS Chlamydia pneumoniae.
XX FH Key Location/Qualifiers
FT Peptide 1..26
FT Protein /label= Signal_peptide
FT /note= "Mature protein"
XX WO200202606-A2.
XX PD 10-JAN-2002.
XX PF 03-JUL-2001; 2001WO-IB01445.
XX PR 03-JUL-2000; 2000GB-0016363.
PR 11-JUL-2000; 2000GB-0017047.
PR 21-JUL-2000; 2000GB-0017983.
PR 07-AUG-2000; 2000GB-0019368.
PR 18-AUG-2000; 2000GB-0020440.
PR 14-SEP-2000; 2000GB-0022583.
PR 10-NOV-2000; 2000GB-0027549.
PR 22-DEC-2000; 2000GB-0031706.
XX (CHIR-) CHIRON SPA.
XX PA Ratti G, Grandi G;

XX WPI: 2002-154726/20.
DR N-PSDB; ABL91200.
XX
PT Novel Chlamydia pneumoniae protein useful in the manufacture of a
PT medicament for treatment or prevention of infection due to Chlamydia,
PT preferably Chlamydia pneumoniae, and for diagnostic purposes
XX
PS Claim 1; Page 57; 364pp; English.
XX
CC Sequences ABB90526-ABB90715 represent novel proteins from Chlamydia
CC pneumoniae (strain CWL029), and ABL91184-ABL91373 represent DNA encoding
CC them. The proteins are predicted to be immunogenic and may therefore be
CC useful in vaccine production and for diagnostic purposes. Chlamydia
CC pneumoniae is a common cause of respiratory disease in humans, and is
CC also involved in the development of cardiovascular diseases such as
CC atherosclerosis, coronary artery disease, carotid artery stenosis,
CC myocardial infarction, cerebrovascular disease, aortic aneurysm,
CC claudication and stroke. The proteins and nucleic acids of the invention
CC may be used in vaccines and pharmaceutical compositions for the
CC prevention or treatment of chlamydial infections, particularly Chlamydia
CC pneumoniae infections. The proteins may also be used in the detection of
CC Chlamydia pneumoniae, and the nucleic acids may be used in the detection of
CC Chlamydia pneumoniae, and the nucleic acids may be used in PCR, branched
CC DNA probe assay or blotting techniques for determining Chlamydia
CC pneumoniae gene expression. The present sequence represents a
CC specifically claimed Chlamydia pneumoniae protein of the invention.
XX
SQ Sequence 928 AA;

Query Match 67.3%; Score 625; DB 23; Length 928;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 925; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MKSSLHFWLSSSLALPLSLNFAFAVVEINLGNPTNSFGPGTYTPPAQTNNADGTIYN 60
DB 1 MKSSLHFWLSSSLALPLSLNFAFAVVEINLGNPTNSFGPGTYTPPAQTNNADGTIYN 60

QY 61 LTGDVITNAGSPALTATSCFETTCNLSFQGHGYOFLQNDAGANCFTTANAKLLS 120
DB 61 LTGDVITNAGSPALTATSCFETTCNLSFQGHGYOFLQNDAGANCFTTANAKLLS 120

QY 121 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFQGNFSDNGGALQSSISLSLN 180
DB 121 FSGFSYLSLIQTNTATTGTAIKSTGACSIQSNYSCYFQGNFSDNGGALQSSISLSLN 180

QY 181 PNLTFAKNKATOKGGALYSTGGITINNTLNSAFSENTAANGGAIYTEASSFISNKA 240
DB 181 PNLTFAKNKATOKGGALYSTGGITINNTLNSAFSENTAANGGAIYTEASSFISNKA 240

QY 241 SFINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTATTSGGAIYTDNLVLS 300
DB 241 SFINNSVTATSGGAIYCSSTAPKPVLTLSDNGLNFIQNTATTSGGAIYTDNLVLS 300

QY 301 GGPTLFKNNSGYDTAAPLGAIAIADSGSLSLALGGDITFEQNTVWKGASSQTTRNS 360
DB 301 GGPTLFKNNSGYDTAAPLGAIAIADSGSLSLALGGDITFEQNTVWKGASSQTTRNS 360

QY 361 INIGNTNAKIVOLRASOGNTIYFDPITTSITAALSDALNLPDLGNPAGPAYQGVIFSG 420
DB 361 INIGNTNAKIVOLRASOGNTIYFDPITTSITAALSDALNLPDLGNPAGPAYQGVIFSG 420

QY 421 EKLSEAEAEADNLKSTIOQPLTLAGGQLSLKSGVTLVAKSPSQSPGSTLLMDAGTTLET 480
DB 421 EKLSEAEAEADNLKSTIOQPLTLAGGQLSLKSGVTLVAKSPSQSPGSTLLMDAGTTLET 480

QY 481 ADGITINNLVNDLSKETKTKTLKATQASQTVTLSSLSLSDVPDPSGNVYEDVSMNPNQVF 540
DB 481 ADGITINNLVNDLSKETKTKTLKATQASQTVTLSSLSLSDVPDPSGNVYEDVSMNPNQVF 540

QY 541 SCLTTLTADDPANIHITLDAADPLEKNPIHWGYQGNWALSWEEDTATKSKAATLTWTKGY 600
DB 541 SCLTTLTADDPANIHITLDAADPLEKNPIHWGYQGNWALSWEEDTATKSKAATLTWTKGY 600

QY 601 NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGISNFFHKDSTKINK 660
DB NPNPERRGTLVANTLWGSFVDRSIOQLVATKVRQSOETRGIWCEGISNFFHKDSTKINK 660

QY 661 GPRHISAGYVVGATTTLASDNLITAAFCQIFGKDRDHFINKNRASAYAAASLHQLHATLS 720
DB GPRHISAGYVVGATTTLASDNLITAAFCQIFGKDRDHFINKNRASAYAAASLHQLHATLS 720

QY 721 SPSSLRLYLPGESEOPVLFDAQISYISKNTWKTYTQAPKGBSSWYNDGCALEASSLP 780
DB SPSSLRLYLPGESEOPVLFDAQISYISKNTWKTYTQAPKGBSSWYNDGCALEASSLP 780

QY 781 HTALSHEGLFHAYFFPIKVEASYIHODSKERTNTLLVRSFDSGLLNVSPVIGITFERFS 840
DB HTALSHEGLFHAYFFPIKVEASYIHODSKERTNTLLVRSFDSGLLNVSPVIGITFERFS 840

QY 841 RNERASYEATVIYVADVYRKNPDCITALLINNTSMKTTCTNLSRQAGIGRAGIFYAFSPN 900
DB RNERASYEATVIYVADVYRKNPDCITALLINNTSMKTTCTNLSRQAGIGRAGIFYAFSPN 900

QY 901 LEVTSNLSMEIRGSSRSYNADLGGKQFQ 928
DB LEVTSNLSMEIRGSSRSYNADLGGKQFQ 928

RESULT 3
AAW88423
ID AAW88423 standard; Protein; 928 AA.
XX
AC AAW88423;
XX
DT 26-APR-1999 (first entry)
XX
DE Chlamydia pneumoniae surface exposed protein Omp10.
XX
KW Omp10; outer membrane protein 10; surface exposed protein;
KW antigen; infection; diagnosis; vaccine; atherosclerosis; asthma.
XX
OS Chlamydia pneumoniae.
XX
PN WO9858953-A2.
XX
PD 30-DEC-1998.
XX
PF 19-JUN-1998; 98WO-DK00266.
PR 23-JUN-1997; 97DK-0000744.
XX
PA (BIRK/) BIRKELUND S.
PA (CHRI/) CHRISTIANSEN G.
PI Birkelund S, Christiansen G, Knudsen K, Madsen A;
PI Mygind P;
XX
DR WPI: 1999-105610/09.
DR N-PSDB; AAX06822.
XX
PT Species-specific test for identifying mammals infected with
PT Chlamydia pneumoniae - comprises detecting antibodies specific for
PT outer membrane proteins of C. pneumoniae or nucleic acids encoding
PT these proteins
XX
PS Claim 7; Page 60-62; 115pp; English.
XX
CC This polypeptide comprises the novel 98.4 kDa surface exposed
CC protein Omp10 of the human respiratory pathogen Chlamydia
CC pneumoniae. Its amino acid sequence was deduced from DNA (see
CC AAX06822) isolated from a C. pneumoniae expression library. The
CC invention provides 12 novel surface exposed proteins, Omp4-Omp15
CC (see AAW88417-28), and nucleic acid sequences encoding them (see
CC AAX06816-27). A new species specific test is claimed that is used
CC to identify mammals (including humans) infected with Chlamydia
CC pneumoniae. The test comprises detecting antibodies specific for

CC Omp4-Omp15 or detecting nucleic acid fragments encoding these outer
 CC membrane proteins, especially by PCR. The proteins are also used
 CC in the diagnosis of *C. pneumoniae* infection in mammals. The
 CC nucleic acids and proteins can also be used in the immunization of
 CC mammals, the nucleic acids being particularly useful as DNA
 CC vaccines for effecting *in vivo* expression of antigens. The
 CC vaccines may also prevent atherosclerosis and bronchial asthma,
 CC which are possibly associated with *C. pneumoniae*.
 XX
 SQ Sequence 928 AA;

Query Match 47.0%; Score 436; DB 20; Length 928;
 Best Local Similarity 99.8%; Pred. No. 0;
 Matches 536; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 392 TAALSDALNLPDLAGNAYOGTIVFSGEKLSEAAEADNLKSTIQOPLLAGQSL 451
 DB 392 TAALSDALNLPDLAGNAYOGTIVFSGEKLSEAAEADNLKSTIQOPLLAGQSL 451
 QY 452 KSGVTLVAKSFQSPGSLTLLMDAGTTLETADGTTNNLVNVDLSKETKTKATLKATQASQ 511
 DB 452 KSGVTLVAKSFQSPGSLTLLMDAGTTLETADGTTNNLVNVDLSKETKTKATLKATQASQ 511
 QY 512 TVTSLGSLSLVDPGNGVYEDVSWNNPQVFSCLTADDPANIHITDLPKPIHWG 571
 DB 512 TVTSLGSLSLVDPGNGVYEDVSWNNPQVFSCLTADDPANIHITDLPKPIHWG 571
 QY 572 YOGNWLNSQEDTATKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDVRSIOQLVAT 631
 DB 572 YOGNWLNSQEDTATKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDVRSIOQLVAT 631
 QY 632 KVRQSOETRGWCEGINSFHHKDSKINKGFRHISAGYVVGATTTLASDNLITAAFCOLF 691
 DB 632 KVRQSOETRGWCEGINSFHHKDSKINKGFRHISAGYVVGATTTLASDNLITAAFCOLF 691
 QY 692 GKDRDHFINKNRASAYAAASHLQHLATLSSPLLRLYLPGESEQPVLPDAQISYISKNT 751
 DB 692 GKDRDHFINKNRASAYAAASHLQHLATLSSPLLRLYLPGESEQPVLPDAQISYISKNT 751
 QY 752 MKTYTQAPKGESSWYNDGCALSSLPHTALSHEGLPHAYFPPIKVEASYIHODSFKE 811
 DB 752 MKTYTQAPKGESSWYNDGCALSSLPHTALSHEGLPHAYFPPIKVEASYIHODSFKE 811
 QY 812 RNTTLVRSDGDLINVSVPIGITPERFRSRNERASYEATVIYVADYRKNPDCCTALLIN 871
 DB 812 RNTTLVRSDGDLINVSVPIGITPERFRSRNERASYEATVIYVADYRKNPDCCTALLIN 871
 QY 872 NTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADLGGKQF 928
 DB 872 NTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADLGGKQF 928

RESULT 4
 AAY35054
 ID AAY35054 standard; Protein; 927 AA.
 XX
 AC AAY35054;
 XX
 DT 13-SEP-1999 (first entry)
 XX
 DE Chlamydia pneumoniae surface exposed polypeptide.
 XX
 KW Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
 KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
 KW vaccine; neutralising epitope.
 XX
 OS Chlamydia pneumoniae.
 XX
 PN WO9927105-A2.
 XX
 PD 03-JUN-1999.
 XX
 PF 20-NOV-1998; 98WO-IB01890.

XX
 PR 04-NOV-1998; 98US-0107078.
 PR 21-NOV-1997; 97FR-0014673.
 XX
 PA (GEST) GENSET.
 XX
 XX Griffiths R;
 XX
 DR WPI; 1999-357842/30.
 XX
 PT Genome sequence of Chlamydia pneumoniae
 XX
 PS Page 942-944; Disclosure; 1912pp; English.
 XX
 CC AAY34584-Y35879 represent the proteins encoded by all the open reading
 CC frames in the complete genome (see AAX91990) of Chlamydia pneumoniae.
 CC *C. pneumoniae* causes respiratory disease such as pneumonia and
 CC bronchitis and is thought to be a contributing factor in heart
 CC disease, sarcoidosis, sinusitis, purulent otitis media, erythema
 CC nodosum or pharyngitis. The polypeptides encoded by the open reading
 CC frames of the *C. pneumoniae* genome (see AAY34584-Y35879) can be used in
 CC immunogenic compositions as vaccines. Vectors containing *C. pneumoniae*
 CC nucleotide sequences can also be used as immunogenic compositions,
 CC especially where the vector directs the expression of a neutralising
 CC epitope of *C. pneumoniae*.
 XX
 SQ Sequence 927 AA;

Query Match 45.9%; Score 426; DB 20; Length 927;
 Best Local Similarity 100.0%; Pred. No. 0;
 Matches 426; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 503 TLKATQASQTVTLGSLSLVDPGNGVYEDVSWNNPQVFSCLTADDPANIHITDLPADP 562
 DB 503 TLKATQASQTVTLGSLSLVDPGNGVYEDVSWNNPQVFSCLTADDPANIHITDLPADP 561
 QY 563 LEKNDIHWGOGNWLNSQEDTATKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDV 622
 DB 563 LEKNDIHWGOGNWLNSQEDTATKSKAATLTWTKGYNPNPERRGTLVANTLWGSFVDV 621
 QY 623 RSIQOLVATKVRQSOETRGWCEGINSFHHKDSKINKGFRHISAGYVVGATTTLASDNL 682
 DB 623 RSIQOLVATKVRQSOETRGWCEGINSFHHKDSKINKGFRHISAGYVVGATTTLASDNL 681
 QY 683 ITAAFCOLFGRDHFINKNRASAYAAASHLQHLATLSSPLLRLYLPGESEQPVLPDAQ 742
 DB 683 ITAAFCOLFGRDHFINKNRASAYAAASHLQHLATLSSPLLRLYLPGESEQPVLPDAQ 741
 QY 743 ISYISKNTMTKYTQAPKGESSWYNDGCALSSLPHTALSHEGLPHAYFPPIKVEAS 802
 DB 743 ISYISKNTMTKYTQAPKGESSWYNDGCALSSLPHTALSHEGLPHAYFPPIKVEAS 801
 QY 803 YIHODSFKEKNTTLVRSDGDLINVSVPIGITPERFRSRNERASYEATVIYVADYRKNP 862
 DB 803 YIHODSFKEKNTTLVRSDGDLINVSVPIGITPERFRSRNERASYEATVIYVADYRKNP 861
 QY 863 DCTTALLINNTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADL 922
 DB 863 DCTTALLINNTSWKTGTNLSRQAGIGRAGIFYAFSPNLEVTNLSMEIRGSSRSYNADL 921
 QY 923 GGKQF 928
 DB 923 GGKQF 927

RESULT 5
 AAY35052
 ID AAY35052 standard; Protein; 930 AA.
 XX
 AC AAY35052;
 XX
 XX 13-SEP-1999 (first entry)
 XX
 DT

DE Chlamydia pneumoniae surface exposed polypeptide.
 XX Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
 KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
 KW vaccine; neutralising epitope.
 XX
 OS Chlamydia pneumoniae.
 XX
 PN WO9927105-A2.
 XX
 PD 03-JUN-1999.
 XX
 XX 20-NOV-1998; 98WO-IB01890.
 XX
 PR 04-NOV-1998; 98US-0107078.
 PR 21-NOV-1997; 97FR-0014673.
 XX
 PA (GEST) GENSET.
 XX
 XX Griffais R;
 XX
 XX WPI; 1999-357842/30.
 XX
 PT Genome sequence of Chlamydia pneumoniae
 XX
 PS Page 940-942; Disclosure; 1912pp; English.
 XX
 CC AAY34584-Y35879 represent the proteins encoded by all the open reading
 CC frames in the complete genome (see AAX91990) of Chlamydia pneumoniae.
 CC C. pneumoniae causes respiratory disease such as pneumonia and
 CC bronchitis and is thought to be a contributing factor in heart
 CC disease, sarcoidosis, sinusitis, purulent otitis media, erythema
 CC nodosum or pharyngitis. The polypeptides encoded by the open reading
 CC frames of the C. pneumoniae genome (see AAY34584-Y35879) can be used in
 CC immunogenic compositions as vaccines. Vectors containing C. pneumoniae
 CC nucleotide sequences can also be used as immunogenic compositions,
 CC especially where the vector directs the expression of a neutralising
 CC epitope of C. pneumoniae.
 XX
 SQ Sequence 930 AA;
 Query Match 1.7%; Score 16; DB 20; Length 930;
 Best Local Similarity 100.0%; Pred. No. 2.2e-06;
 Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 319 GGATAIADSGSLSLSA 334
 Db 324 GGATAIADSGSLSLSA 339
 RESULT 6
 AAW88424
 ID AAW88424 standard; Protein; 930 AA.
 XX
 AC AAW88424;
 XX
 DT 26-APR-1999 (first entry)
 XX
 DE Chlamydia pneumoniae surface exposed protein Omp1.
 XX
 KW Omp1; outer membrane protein 11; surface exposed protein;
 KW antigen; infection; diagnosis; vaccine; atherosclerosis; asthma.
 XX
 OS Chlamydia pneumoniae.
 XX
 PN WO9858953-A2.
 XX
 XX 30-DEC-1998.
 XX
 PF 19-JUN-1998; 98WO-DK00266.
 XX
 XX 23-JUN-1997; 97DK-0000744.
 PR
 XX

PA (BIRK/) BIRKELUND S.
 XX (CHRI/) CHRISTIANSEN G.
 PI Birkelund S, Christiansen G, Knudsen K, Madsen A;
 PI Mygind P;
 XX
 DR WPI; 1999-105610/09.
 DR N-PSDB; AAX06823.
 XX
 PT Species-specific test for identifying mammals infected with
 PT Chlamydia pneumoniae - comprises detecting antibodies specific for
 PT outer membrane proteins of C. pneumoniae or nucleic acids encoding
 PT these proteins
 XX
 PS Claim 7; Page 63-65; 115pp; English.
 XX
 CC This polypeptide comprises the novel 97.6 kDa surface exposed
 CC protein Omp11 of the human respiratory pathogen Chlamydia
 CC pneumoniae. Its amino acid sequence was deduced from DNA (see
 CC AAX06823) isolated from a C. pneumoniae expression library. The
 CC invention provides 12 novel surface exposed proteins, Omp4-Omp15
 CC (see AAW88417-28), and nucleic acid sequences encoding them (see
 CC AAX06816-27). A new species specific test is claimed that is used
 CC to identify mammals (including humans) infected with Chlamydia
 CC pneumoniae. The test comprises detecting antibodies specific for
 CC Omp4-Omp15 or detecting nucleic acid fragments encoding these outer
 CC membrane proteins, especially by PCR. The proteins are also used
 CC in the diagnosis of C. pneumoniae infection in mammals. The
 CC nucleic acids and proteins can also be used in the immunization of
 CC mammals, the nucleic acids being particularly useful as DNA
 CC vaccines for effecting in vivo expression of antigens. The
 CC vaccines may also prevent atherosclerosis and bronchial asthma,
 CC which are possibly associated with C. pneumoniae.
 XX
 SQ Sequence 930 AA;
 Query Match 1.7%; Score 16; DB 20; Length 930;
 Best Local Similarity 100.0%; Pred. No. 2.2e-06;
 Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 319 GGATAIADSGSLSLSA 334
 Db 324 GGATAIADSGSLSLSA 339
 RESULT 7
 AAY90240
 ID AAY90240 standard; Protein; 930 AA.
 XX
 AC AAY90240;
 XX
 DT 29-AUG-2000 (first entry)
 XX
 DE Chlamydia antigen CPN100639.
 XX
 KW Chlamydia antigen; diagnosis; infection; community acquired pneumonia;
 KW therapy; upper respiratory tract disease; bronchitis; sinusitis;
 KW asthmatic bronchitis; adult-onset asthma; acute exacerbations of asthma.
 XX
 OS Chlamydia pneumoniae.
 XX
 PN WO200032794-A2.
 XX
 PD 08-JUN-2000.
 XX
 XX 01-DEC-1999; 99WO-CA01147.
 XX
 PR 01-DEC-1998; 98US-0110339.
 PR 01-DEC-1998; 98US-0110340.
 PR 01-DEC-1998; 98US-0110427.
 PR 01-DEC-1998; 98US-0110428.
 PR 01-DEC-1998; 98US-0110438.
 XX

PA (CONN-) CONNAUGHT LAB LTD.
 XX Murdin AD, Oomen RP, Wang J;
 XX WPI: 2000-412339/35.
 DR N-PSDB; AAA30853, AAA30854.
 XX
 DR Nucleic acids encoding polypeptide antigens from Chlamydia useful for
 PT preventing, diagnosing and treating diseases such as community acquired
 PT pneumonia, bronchitis, sinusitis and asthmatic bronchitis, adult-onset
 PT asthma -
 XX
 XX Claim 16; Fig 7; 174pp; English.
 XX
 XX This sequence is a Chlamydia antigen of the invention, designated
 CC CPN100639. The nucleic acids (and their complementary sequences) may be
 CC used as diagnostic agents for detecting the presence of nucleic acids
 CC encoding Chlamydia antigens in samples according to standard methods,
 CC and therefore, for diagnosing Chlamydia infections. For example, they may
 CC be used as primers and probes for diagnostic polymerase chain reaction
 CC (PCR) assays. Antisense sequences may be used to down regulate
 CC expression of the proteins and may be used to treat infections. The
 CC nucleic acids may also be used to produce the protein antigens they
 CC encode according to standard recombinant DNA methodologies. The
 CC proteins may then be used as antigens for the production of antibodies
 CC (i.e. as vaccines) for preventing infection by Chlamydia. The
 CC antibodies may also be used as diagnostic reagents for detecting
 CC infections. Chlamydia is a pathogen implicated in the development of
 CC (for example) community acquired pneumonia, upper respiratory tract
 CC disease (especially bronchitis and sinusitis, asthmatic bronchitis,
 CC adult-onset asthma and acute exacerbations of asthma in adults.
 XX
 SQ Sequence 930 AA;
 Query Match 1.7%; Score 16; DB 21; Length 930;
 Best Local Similarity 100.0%; Pred. No. 2.2e-06;
 Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 OY 319 GGATATADSGSLSLA 334
 DB 324 GGATATADSGSLSLA 339
 RESULT 8
 ABB90548
 ID ABB90548 standard; Protein; 930 AA.
 XX
 AC ABB90548;
 XX
 DT 29-JUL-2002 (first entry)
 XX
 DE Chlamydia pneumoniae cp6729 protein, SEQ ID NO:45.
 XX
 XX Chlamydial infection; antigen; immunogen; vaccine; diagnosis;
 KW human respiratory disease; cardiovascular disease; atherosclerosis;
 KW coronary artery disease; carotid artery stenosis; myocardial infarction;
 KW cerebrovascular disease; aortic aneurysm; claudication; stroke;
 KW strain CWL029.
 XX
 OS Chlamydia pneumoniae.
 XX
 FH Key Location/Qualifiers
 FT Peptide 1..26
 FT /label= signal_peptide
 FT Protein 27..930
 FT /note= "Mature protein"
 XX
 XX WO200202606-A2.
 PN
 XX 10-JAN-2002.
 PD
 XX 03-JUL-2001; 2001WO-IB01445.
 PF
 XX

PR 03-JUL-2003; 2000GB-0016363.
 PR 11-JUL-2004; 2000GB-0017047.
 PR 21-JUL-2000; 2000GB-0017983.
 PR 07-AUG-2000; 2000GB-0019368.
 PR 18-AUG-2000; 2000GB-0020440.
 PR 14-SEP-2000; 2000GB-0022583.
 PR 10-NOV-2000; 2000GB-0027549.
 PR 22-DEC-2000; 2000GB-0031706.
 XX (CHIR-) CHIRON SPA.
 PA
 XX Ratti G, Grandi G;
 PI
 XX WPI: 2002-154726/20.
 DR N-PSDB; ABL91206.
 XX
 PT Novel Chlamydia pneumoniae protein useful in the manufacture of a
 PT medicament for treatment or prevention of infection due to Chlamydia,
 PT preferably Chlamydia pneumoniae, and for diagnostic purposes -
 XX
 XX Claim 1; Page 64; 364pp; English.
 XX
 CC Sequences ABB90526-ABB90715 represent novel proteins from Chlamydia
 CC pneumoniae (strain CWL029), and ABL91184-ABL91373 represent DNA encoding
 CC them. The proteins are predicted to be immunogenic and may therefore be
 CC useful in vaccine production and for diagnostic purposes. Chlamydia
 CC pneumoniae is a common cause of respiratory disease in humans, and is
 CC also involved in the development of cardiovascular diseases such as
 CC atherosclerosis, coronary artery disease, carotid artery stenosis,
 CC myocardial infarction, cerebrovascular disease, aortic aneurysm,
 CC claudication and stroke. The proteins and nucleic acids of the invention
 CC may be used in vaccines and pharmaceutical compositions for the
 CC prevention or treatment of chlamydial infections, particularly Chlamydia
 CC pneumoniae infections. The proteins may also be used in the detection of
 CC Chlamydia pneumoniae, and the nucleic acids may be used in PCR, branched
 CC DNA probe assay or blotting techniques for determining Chlamydia
 CC pneumoniae gene expression. The present sequence represents a
 CC specifically claimed Chlamydia pneumoniae protein of the invention.
 XX
 SQ Sequence 930 AA;
 Query Match 1.7%; Score 16; DB 23; Length 930;
 Best Local Similarity 100.0%; Pred. No. 2.2e-06;
 Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 OY 319 GGATATADSGSLSLA 334
 DB 324 GGATATADSGSLSLA 339
 RESULT 9
 ABB90533
 ID ABB90533 standard; Protein; 354 AA.
 XX
 AC ABB90533;
 XX
 DT 29-JUL-2002 (first entry)
 XX
 DE Chlamydia pneumoniae cp0017 protein, SEQ ID NO:15.
 XX
 KW Chlamydial infection; antigen; immunogen; vaccine; diagnosis;
 KW human respiratory disease; cardiovascular disease; atherosclerosis;
 KW coronary artery disease; carotid artery stenosis; myocardial infarction;
 KW cerebrovascular disease; aortic aneurysm; claudication; stroke;
 KW strain CWL029.
 XX
 OS Chlamydia pneumoniae.
 XX
 XX WO200202606-A2.
 PN
 XX 10-JAN-2002.
 PD
 XX 03-JUL-2001; 2001WO-IB01445.
 PF

XX 03-JUL-2000; 2000GB-0016363.
 PR 11-JUL-2000; 2000GB-0017047.
 PR 21-JUL-2000; 2000GB-0017983.
 PR 07-AUG-2000; 2000GB-0019368.
 PR 18-AUG-2000; 2000GB-0020440.
 PR 14-SEP-2000; 2000GB-0022583.
 PR 10-NOV-2000; 2000GB-0027549.
 PR 22-DEC-2000; 2000GB-0031706.
 XX (CHIR-) CHIRON SPA.
 PA
 XX Ratti G, Grandi G;
 PI
 XX WPI; 2002-154726/20.
 DR N-PSDB; ABL91191.
 DR
 XX Novel Chlamydia pneumoniae protein useful in the manufacture of a
 PT medicament for treatment or prevention of infection due to Chlamydia,
 PT preferably Chlamydia pneumoniae, and for diagnostic purposes -
 PT
 XX Claim 1; Page 48; 364pp; English.
 PS
 XX Sequences AB90576-AB90715 represent novel proteins from Chlamydia
 CC pneumoniae (strain CWL029), and ABL91184-ABL91373 represent DNA encoding
 CC them. The proteins are predicted to be immunogenic and may therefore be
 CC useful in vaccine production and for diagnostic purposes. Chlamydia
 CC pneumoniae is a common cause of respiratory disease in humans, and is
 CC also involved in the development of cardiovascular diseases such as
 CC atherosclerosis, coronary artery disease, carotid artery stenosis,
 CC myocardial infarction, cerebrovascular disease, aortic aneurysm,
 CC claudication and stroke. The proteins and nucleic acids of the invention
 CC may be used in vaccines and pharmaceutical compositions for the
 CC prevention or treatment of chlamydial infections, particularly Chlamydia
 CC pneumoniae infections. The proteins may also be used in the detection of
 CC Chlamydia pneumoniae, and the nucleic acids may be used in PCR, branched
 CC DNA probe assay or blotting techniques for determining Chlamydia
 CC pneumoniae gene expression. The present sequence represents a
 CC specifically claimed Chlamydia pneumoniae protein of the invention.
 CC
 XX Sequence 354 AA;
 SQ
 Query Match 1.3%; Score 12; DB 23; Length 354;
 Best Local Similarity 100.0%; Pred. No. 0.0084;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 615 LMGSFVDVRSIQ 626
 Db 46 LMGSFVDVRSIQ 57
 RESULT 10
 AAY34614
 ID AAY34614 standard; Protein; 507 AA.
 XX
 AC AAY34614;
 XX
 DT 13-SEP-1999 (first entry)
 DE Chlamydia pneumoniae transmembrane protein sequence.
 XX
 KW Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
 KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
 KW vaccine; neutralising epitope.
 XX
 OS Chlamydia pneumoniae.
 XX
 FN WO9927105-A2.
 XX
 PD 03-JUN-1999.
 XX
 PF 20-NOV-1998; 98WO-IB01890.
 XX

PR 04-NOV-1998; 98US-0107078.
 PR 21-NOV-1997; 97ER-0014673.
 XX
 PA (GEST) GENSET.
 XX
 PI Griffais R;
 XX
 DR WPI; 1999-357842/30.
 XX
 XX Genome sequence of Chlamydia pneumoniae
 PT
 XX
 PS Page 534-635; Disclosure; 1912pp; English.
 XX
 CC AAY34584-Y35879 represent the proteins encoded by all the open reading
 CC frames in the complete genome (see AAX91990) of Chlamydia pneumoniae.
 CC C. pneumoniae causes respiratory disease such as pneumonia and
 CC bronchitis and is thought to be a contributing factor in heart
 CC disease, sarcoidosis, sinusitis, purulent otitis media, erythema
 CC nodosum or pharyngitis. The polypeptides encoded by the open reading
 CC frames of the C. pneumoniae genome (see AAY34584-Y35879) can be used in
 CC immunogenic compositions as vaccines. Vectors containing C. pneumoniae
 CC nucleotide sequences can also be used as immunogenic compositions,
 CC especially where the vector directs the expression of a neutralising
 CC epitope of C. pneumoniae.
 CC
 XX Sequence 507 AA;
 SQ
 Query Match 1.3%; Score 12; DB 20; Length 507;
 Best Local Similarity 100.0%; Pred. No. 0.012;
 Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Qy 615 LMGSFVDVRSIQ 626
 Db 199 LMGSFVDVRSIQ 210
 RESULT 11
 AAW88422
 ID AAW88422 standard; Protein; 918 AA.
 XX
 AC AAW88422;
 XX
 DT 26-APR-1999 (first entry)
 DE Chlamydia pneumoniae surface exposed protein Omp9.
 XX
 KW Omp9; outer membrane protein 9; surface exposed protein; antigen;
 KW infection; diagnosis; vaccine; atherosclerosis; asthma.
 XX
 OS Chlamydia pneumoniae.
 XX
 PN WO9858953-A2.
 XX
 PD 30-DEC-1998.
 XX
 PF 19-JUN-1998; 98WO-DK00266.
 XX
 PR 23-JUN-1997; 97DK-0000744.
 XX
 PA (BIRK/) BIRKELUND S.
 PA (CHRI/) CHRISTIANSEN G.
 XX
 PI Birkelund S, Christiansen G, Knudsen K, Madsen A;
 PI Mygind P;
 XX
 DR WPI; 1999-105610/09.
 DR N-PSDB; AAX06821.
 XX
 XX Species-specific test for identifying mammals infected with
 PT Chlamydia pneumoniae - comprises detecting antibodies specific for
 PT outer membrane proteins of C. pneumoniae or nucleic acids encoding
 PT these proteins
 XX

PS Claim 7; Page 56-58; 115pp; English.

XX This polypeptide comprises the novel 96.7 kDa surface exposed
CC protein Omp9 of the human respiratory pathogen Chlamydia
CC pneumoniae. Its amino acid sequence was deduced from DNA (see
CC AX05821) isolated from a C. pneumoniae expression library. The
CC invention provides 12 novel surface exposed proteins, Omp4-Omp15
CC (see AA088417-28), and nucleic acid sequences encoding them (see
CC AX05816-27). A new species specific test is claimed that is used
CC to identify mammals (including humans) infected with Chlamydia
CC pneumoniae. The test comprises detecting antibodies specific for
CC Omp4-Omp15 or detecting nucleic acid fragments encoding these outer
CC membrane proteins, especially by PCR. The proteins are also used
CC in the diagnosis of C. pneumoniae infection in mammals. The
CC nucleic acids and proteins can also be used in the immunization of
CC mammals, the nucleic acids being particularly useful as DNA
CC vaccines for effecting in vivo expression of antigens. The
CC vaccines may also prevent atherosclerosis and bronchial asthma,
CC which are possibly associated with C. pneumoniae.

XX Sequence 918 AA;

Query Match 1.3%; Score 12; DB 20; Length 918;

Best Local Similarity 100.0%; Pred. No. 0.02; Mismatches 0; Indels 0; Gaps 0;

QY 615 LMGSFVDVRSIQ 626
Db 610 LMGSFVDVRSIQ 621

RESULT 12

AA059369
ID AAY69369 standard; Protein; 918 AA.

XX AAY69369;

XX 19-JUN-2000 (first entry)

XX Amino acid sequence of the CPN100395 polypeptide.

XX CPN100395; Chlamydia infection; immune response; vaccine.

XX Chlamydia pneumoniae.

XX WO200011183-A2.

XX 02-MAR-2000.

XX 18-AUG-1999; 99WO-IB01449.

XX 20-AUG-1998; 98US-0097187.

XX 20-AUG-1998; 98US-0097188.

XX 20-AUG-1998; 98US-0097189.

XX 20-AUG-1998; 98US-0097190.

XX 20-AUG-1998; 98US-0097195.

XX 20-AUG-1998; 98US-0097196.

XX 20-AUG-1998; 98US-0097197.

XX 27-AUG-1998; 98US-0097191.

XX 17-AUG-1999; 99US-0376770.

XX (CONN-) CONNAUGHT LAB LTD.

XX Murdin AD, Omen RP;

XX WPI: 2000-224703/19.

XX N-PSDB; AA661509.

XX Novel antigens and corresponding DNA molecules that can be used to
PT prevent, treat and diagnose disease caused by Chlamydia infection in
PT mammals, especially humans.

PS Claim 19; Fig 15-E; 201pp; English.

XX

CC AAY69362-69 represent Chlamydia pneumoniae polypeptides. The
CC polypeptides are present in the bacterial membrane structure, in the
CC external vicinity of the membrane structure, in the inclusion membrane
CC structure, in the external vicinity of the inclusion membrane structure,
CC and in the cytoplasm of the infected cell. The polypeptides may be
CC used to prevent, treat and detect the presence of Chlamydia infection
CC and/or the presence of Chlamydia in a sample. The polypeptides may
CC also be used to induce an immune response in a mammal. The vaccine
CC vector comprising the polynucleotides is used to induce an immune
CC response in a mammal. Antibodies directed against the polypeptides
CC may also be used therapeutically to treat and/or prevent a Chlamydia
CC infection.

XX Sequence 918 AA;

Query Match 1.3%; Score 12; DB 21; Length 918;

Best Local Similarity 100.0%; Pred. No. 0.02; Mismatches 0; Indels 0; Gaps 0;

Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 615 LMGSFVDVRSIQ 626
Db 610 LMGSFVDVRSIQ 621

RESULT 13

AA0534608

ID AAY34608 standard; Protein; 199 AA.

XX AAY34608;

XX 13-SEP-1999 (first entry)

XX Chlamydia pneumoniae surface exposed polypeptide.

XX Respiratory disease; pneumonia; bronchitis; heart disease; sarcoidosis;
KW sinusitis; purulent otitis media; erythema nodosum; pharyngitis;
KW vaccine; neutralising epitope.

XX Chlamydia pneumoniae.

XX WO9927105-A2.

XX 03-JUN-1999.

XX 20-NOV-1998; 98WO-IB01890.

XX 04-NOV-1998; 98US-0107078.

XX 21-NOV-1997; 97FR-0014673.

XX (GEST) GENSET.

XX Griffais R;

XX WPI: 1999-357842/30.

XX Genome sequence of Chlamydia pneumoniae

XX Page 630; Disclosure; 1912pp; English.

XX AAY34584-Y35879 represent the proteins encoded by all the open reading
CC frames in the complete genome (see AAX91990) of Chlamydia pneumoniae.
CC C. pneumoniae causes respiratory disease such as pneumonia and
CC bronchitis and is thought to be a contributing factor in heart
CC disease, sarcoidosis, sinusitis, purulent otitis media, erythema
CC nodosum or pharyngitis. The polypeptides encoded by the open reading
CC frames of the C. pneumoniae genome (see AAY34584-Y35879) can be used in
CC immunogenic compositions as vaccines. Vectors containing C. pneumoniae
CC nucleotide sequences can also be used as immunogenic compositions,
CC especially where the vector directs the expression of a neutralising
CC epitope of C. pneumoniae.

XX Sequence 199 AA;

XX